11TH INTERNATIONAL CONFERENCE ON
“SCIENCE AND INNOVATIVE ENGINEERING – 2021”
(ICSIE - 2021)

MAY 02nd 2021

ORGANIZER BY

ORGANIZATION OF SCIENCE AND INNOVATIVE ENGINEERING & TECHNOLOGY (OSIET)

Chennai, India

www.ijsiet.org

In Association with

JAWAHAR ENGINEERING COLLEGE
(Unit Of Stree Seva Mandir)
‘Sabarmathi’
No. 54, K.K Road , Kaveri Rangan Nagar,Saligramam,Chennai – 600093

www.jecchennai.in
ICSIE 2021
Proceeding of 11\textsuperscript{th} International Conference on Science and Innovative Engineering
02\textsuperscript{nd} May, 2021

Organized by:
Organization of Science and Innovative Engineering & Technology
4\3, Vallalar street, Choolaimedu, Chennai – 600094

Venue:
JAWAHAR ENGINEERING COLLEGE
Chennai – 600093
CHAIRMAN’S MESSAGE

Mr.A.S.Narayana Rao is an Educationalist Philanthropist and a person with abundant knowledge in all subjects. His mother (Late) Mrs.A.C.Krishna Rao started many institutions with a vision and mission.

STREE – Means women

Sree seva mandir is a society started by (Late) Mrs. Krishna Rao for the upliftment of women and to alleviate the sufferings of women. She educated them, taught them how to lead independent life. Her services in Tamil Nadu will always be remembered. Mr. Surya Narayana Rao is following the footsteps of his mother and father and continues to work to achieve her mother’s vision. His mother started schools and he went one step ahead and started Jawahar Engineering College in the heart of Chennai city which is located in Saligramam. He is the guiding force for everyone in all the institutions. His untiring work and the care he takes in welfare of the students reminds of mother his mother (Late) Mrs. A.C.Krishna Rao is still living in every one’s heart.
ABOUT THE COLLEGE

Jawahar engineering college is an Educational institution – A unit of Stree Seva Mandir. The Mandir is 60 year old service organization dedicated to import education and job oriented training to girls and women.

The organization has no political, communal, religious, linguistic or territorial affiliations

The institution has consistently developed a variety of services to promote Entrepreneurship and to add National productivity.

After 5 decades of persistent and determined march to process in various fields of education. True to the motto-

“Where the mind is led forward by Thee.
Into ever widening thought and action”

The next milestone in its endeavor – Jawahar Engineering College is born

Situated in 3 acres of sprawling space in the heart of the mega city saligramam, the institution offers undergraduate engineering course to both women and men.

DEPARTMENTS:

a) B.E Electronics and Communication Engineering
b) B.E Electronics and Electrical Engineering
c) B.E Industrial Engineering
d) B.E Mechanical Engineering
e) B.E Information Technology

The college is well equipped with laboratories and library.
ICSIE 2021

SECRETARY

- Dr Krishna Moorty
- Dr.P.Aravinthan
- K.Janani

ADVISORY COMMITTEE

Dr.Shanthi, Director, Tamil Nadu University of Information and Training Center, India.
Dr.Selwyn Piramuthu, Professor, University of Florida, USA.
Dr.Sunder Selwyn, Principal, Prince Dr.K.Vasudevan College of Engineering, Chennai.
Dr.N.Radhi, Professor, Department of CSE, Amrita Vishwa Vidyapeetham, Coimbatore.
Dr.T.GireeshKumar, Associate Professor, TIFAC CORE, Amrita Vishwa Vidyapeetham, Coimbatore.
Dr.C.S.Shunmuga Velayutham, Associate Professor, Department of CSE, Amrita Vishwa Vidyapeetham, Coimbatore.
Prof. A.Krishnamoorthy, Assistant Professor (Senior), VIT, Vellore, Tamil Nadu.
Dr. Sivakumar Krishnan, Principal, Rathinam Technical Campus, Coimbatore, Tamil Nadu.
Dr. Nageswara Guptapha M, Vice Principal, Professor Department of Computer Science and Engineering, Sri Venkateshwara College of Engineering, Bangalore, Karnataka.
Dr. V. Vijayarajan, Associate Professor, VIT, Vellore, Tamil Nadu.
Dr. P. Boominathan, Associate Professor, VIT, Vellore, Tamil Nadu.
Murali S, Assistant Professor (Senior), VIT, Vellore, Tamil Nadu.
Boominathan P, Assistant Professor (Senior), VIT, Vellore, Tamil Nadu.
Dr.R.Karthi, Associate Professor, Department of CSE, Amrita Vishwa Vidyapeetham, Coimbatore.
Dr.T.R.Swapna, Assistant Professor, Department of CSE, Amrita Vishwa Vidyapeetham, Coimbatore.
Dr.Kumar Rajamini, Manager, Robert Bosch Engineering and Business Solutions, Bangalore.
Dr.Ganesh Neelakanta Iyer, Associate Professor, Department of CSE, Amrita Vishwa Vidyapeetham, Coimbatore.
Dr.P.Prakash, Assistant Professor, Department of CSE, Amrita Vishwa Vidyapeetham, Coimbatore.
Dr.K.V.Shriram, Assistant Professor, Department of CSE, Amrita Vishwa Vidyapeetham, Coimbatore.
Dr.S.Thangavelu, Assistant Professor, Department of CSE, Amrita Vishwa Vidyapeetham, Coimbatore.
Dr Pooja Tripathi, Professor and Head IT, Inderprastha Engineering College, Ghaziabad, U.P.
Prof. Ela Kumar, Professor and Head, Indira Gandhi Delhi Technical University for Women, New Delhi, India.
Dr.G.Suseendran, Assistant Professor, School of Computing Sciences Department of Information Technology, Vels Institute of Science, Technology & Advanced Studies (VISTAS), Chennai, Tamil Nadu.
Dr.D.Akila, Associate Professor, Department of Information Technology, VELS Institute of Science, Technology & Advanced Studies, Chennai, Tamil Nadu.
Dr.T.Naithya, Assistant Professor, Department of Computer Science, New Prince Sri Bhavani Arts and Science College, Chennai, Tamil Nadu.
Dr. S. Elavarasi, Assistant Professor, Department of Computer Science, New Prince Sri Bhavani Arts and Science College, Chennai, Tamil Nadu.
Dr. S. Jeyalakshmi, Assistant Professor, Department of Information Technology, VELS Institute of Science, Technology & Advanced Studies, Chennai, Tamil Nadu.
Dr. V. R. Elangova, Assistant Professor, Department of Computer Science, A.M. Jain College, Chennai, Tamil Nadu.
Dr. Christo Ananth, Assistant Professor, Department of Computer Science and Engg, Salmabad, Kingdom of Bahrain.
Dr. Manjunatha, Principal, New Horizon College of Engineering, Bangalore.
Dr. K. Gopalakrishnan, Dean R&D, New Horizon College of Engineering, Bangalore.
Dr. S. Mohan Kumar, Professor, Department of Information Science and Engineering, New Horizon College of Engineering, Bangalore.
Dr. B. Neeraja, Professor and Deputy Head Academics, Dr. MGR Educational and Research Institute, University, Chennai.
Dr. Anu A. Gokhale, Professor and Coordinator Computer systems Program, Department of Technology, Illinois State University.
Dr. S. Vijayakumar, Vice-Chair, IEEE PSES (Madras Chapter), SITAMS, Autonomous, Chittoor, Andhra Pradesh, India.
Dr. Joseph Anthony Prathap, Associate Professor, Department of Electronics & Communication Engineering, Vardhaman College of Engineering, Shamshabad, Hyderabad, Telangana, India.
Dr. N. Badrinath, Department of Computer Science & Engg. Lords Institute of Engineering and Technology, Hyderabad, Telangana.
Bipin Nair B. J, Assistant Professor, Computer Science, School of Arts and Sciences, Mysuru, Karnataka.
Mr. John Paul P, Teaching Associate, CSE Department, SRMIST, Chennai.
Dr. C. K. Kirubhashankar, Professor, Department of Mathematics, Sathyabama Institute of Science and Technology, Chennai, Tamil Nadu.
Mr. Delhibabu, Assistant Professor, Department of Mathematics, Sathyabama Institute of Science and Technology, Chennai, Tamil Nadu.
Dr. Ravithammal, Assistant Professor, Department of Mathematics, Quaid-e-Millath Government College for Women, Chennai, Tamil Nadu.
Mr. V. Senthil Nayagam, Assistant Professor, Department of Electrical and Electronics Engineering, Sathyabama Institute of Science and Technology, Chennai, Tamil Nadu.
Dr. R. Jayashree, Assistant Professor, Department of Computer Science and Engineering, SRM Institute of Science and Technology, Chennai, Tamil Nadu.
Sujini Anand, Team leader, TCS, India.
A. S. Vijay, HR, Cadsoft, India.
Velankanni Sagayaraj, Infosys, Norway.
Dr. S. Rajkumar, Panimalar Engineering College, Chennai, India.
Shruthy Devendra, Technical Writer, Citrix, India.
Dr. Bhamidi V. S. S. Prasad, Professor, Indian Institute of Technology Madras, Chennai.
Dr. Sathish Kumar, Assistant Professor, Madras Institute of Technology, Chennai, India.
Dr. Indumathy Varadarajan, Harvard University, Boston, USA.
Ms. Rathi Anand, Senior programmer, Iscope, USA.
Dr. P. Selvaraju, Dean R&D, Vel Tech Engineering College, Chennai, India.
A. Amudha Surabi, Scientist, Indian Institute of Crop Production & Technology, Thanjavur, India.
Dr. V. Ramesh Kumar, Head and Professor, Department of Biotech Engineering, Sathyabama Institute of Science and Technology, Chennai, Tamil Nadu.
Dr. Sundar Sathish, Head and Professor, Department of Chemical Engineering, Sathyabama Institute of Science and Technology, Chennai, Tamil Nadu.
Dr. R. Thiyagarajan, Assistant Professor, Department of Biotech Engineering, Sathyabama Institute of Science and Technology, Chennai, Tamil Nadu.
Mr. K. Vengata Krishnan, Assistant Professor, Department of Mathematics, Sathyabama Institute of Science and Technology, Chennai, Tamil Nadu.
Dr. A. Mohammed Ismail, Professor, Department of Mathematics, Sathyabama Institute of Science and Technology, Chennai, Tamil Nadu.
Dr. S. Vaithyasubramanian, Assistant Professor, Department of Mathematics, Sathyabama Institute of Science and Technology, Chennai.
Dr. D. Saravanan, Faculty of Operations & IT, IBS Hyderabad, The ICFAI Foundation for Higher Education, Hyderabad, Telangana.
Dr. G. P. Ramesh, Head of the Department, Department of ECE, St. Peter’s Institute of Higher Education and Research, Chennai.
Dr. G. Sundar, Senior Lecturer, Department of Mathematics, PSNA College of Engineering and Technology, Dindigul, Tamil Nadu.
Dr. S. Meenakshisundaram, Assistant Professor, Department of Mathematics, GKM Engineering College, Chennai, Tamil Nadu.
Mrs. Udhuma Abdul Latheef, Head School of Computing, Department of Information and Communications Technology, Villa College, Male’ Maldives.
Dr. L. Arockiam, Associate Professor and Dean, Department of Computer Science, St. Joseph’s College (Autonomous), Trichy, Tamil Nadu.
Dr. P. Calduwel Newton Assistant Professor, Department of Computer Science, Government Arts College, Thiruverumbur, Trichy, Tamil Nadu.
Dr. C. Prasanna Ranjith, Lecturer, Department of Information Technology, Shinas College of Technology, Sultanate of Oman.
Dr. M. Syed Khaja Mohideen, Lecturer, Department of Information Technology, Salalah College of Technology, Salalah, Sultanate of Oman.
Dr. Charles Savarimuthu, Lecturer, Department of Information Technology, Al-Musanna College of Technology, Sultanate of Oman.
Dr. K. Ramkumar, Lecturer, Department of Information and Communications Technology Villa College, Male’ Maldives.
Dr. R. Nismon Rio, Assistant Professor, Department of Computer Science, Christ University (Deemed to be University), Bangalore, Karnataka.
Mr. V. Sampurnakumar, Lecturer, Department of Information and Communications Technology, Villa College, Male’ Maldives.
Mrs. Litty Tressa George, Lecturer, Department of Information and Communications Technology, Villa College, Male’ Maldives.
Mrs. Mano Priya Vijayan, Lecturer, Department of Health Sciences, Villa College, Male’ Maldives.
Dr. Avinash Dundigalla, Lecturer, Department of Health Sciences, Villa College, Male’ Maldives.
Dr. N. Arulkumar Assistant, Professor, Department of Computer Science, Christ University (Deemed to be University), Bangalore, Karnataka.
Dr. J. G. R. Sathiaseelan, Associate Professor & Head, Department of Computer Science, Bishop Heber College (Autonomous), Trichy, Tamil Nadu.
Dr. Md. Shohel Sayeed, Associate Professor, Faculty of Information Science and Technology, Multimedia University, Selangor, Malaysia.
Dr. D. Gnana Rajesh, Professor & Head, Department of Information Technology, Al Musanna College of Technology, Sultanate of Oman.
Dr. Sellappan Palaniappan, Provost, Malaysia University of Science and Technology, Selangor, Malaysia.
Dr. Pushpendu Kar, Research Fellow, Norwegian University of Science and Technology, Norway.
Dr. A. Cecil Donald, Assistant Professor, Department of Computer Science (UG), Kristu Jayanti College (Autonomous), Bengaluru, Karnataka.
Dr. Mukesh Mann, Assistant Professor, Department of Computer Science and Engineering, BML Munjal University, Haryana.
Dr. Doreswamy, Professor, Department of Computer Science, Mangalore University, Mangalore, Karnataka.
Dr. Jatinder Singh Manhas, Head & Sr. Assistant Professor, Department of Computer Science & Engineering, University of Jammu.
Dr. Paramjeet Singh, Professor, Department of Computer Science, Maharaja Ranjit Singh Punjab Technical University, Bathinda, Punjab.
Dr. M. Ramakrishna, Professor and Head, Department of Computer Science & Engineering, Vemana Institute of Technology, Bangalore, Karnataka.
Dr. R. Sunder, Associate Professor, Department of Computer Science & Engineering, Sahrdaya College of Engg and Technology, Thrissur, Kerala.
Mr. Annaiah H, Assistant Professor, Department of Computer Science & Engineering, Government Engineering College, HASSAN, Karnataka.
Dr. P. Thangaraju, Associate Professor, Department of Computer Applications, Bishop Heber College, Trichy, Tamil Nadu.
Dr. B. Arputhamary, Associate Professor, Department of Computer Applications, Bishop Heber College, Trichy, Tamil Nadu.
Dr. K. Shankar, Assistant Professor, Department of Computer Science, Kalasalingam University, Srivilliputhur, Tamil Nadu. Dr. C. Balakrishnan, Assistant Professor, Department of Information and Skills Development Alagappa University, Karaikkudi, Tamil Nadu.
Mr. V. Karamchand Gandhi, Dr Ambedkar Government Arts College, Department of Computer Science, (Autonomous), Vyasarpadi, Chennai, Tamil Nadu.
Dr. P.S. Eliahim Jeevaraj, Assistant Professor, Department of Computer Science, Bishop Heber College (Autonomous), Trichy, Tamil Nadu.
Dr. E. George Dharma Prakash Raj, Assistant Professor, Department of Computer Science, Bharathidasan University, Trichy, Tamil Nadu.
Dr. J. Isac Gnanaraj, Assistant Professor, Department of Computer Science, Bishop Heber College (Autonomous), Trichy, Tamil Nadu.
Dr. A. Dalvin Vinoth Kumar, Assistant Professor, Department of Computer Science, Kristu Jeyanti College, Bangalore, Karnataka.
Dr. R. Stephen, Assistant Professor, Department of Computer Science, Kristu Jeyanti College, Bangalore, Karnataka.
Mr. BJ Hubert Shanthan, Assistant Professor, Department of Computer Science, Kristu Jeyanti College, Bangalore, Karnataka.
Mr. Vishal Sharad Hingmire, Assistant Professor, Department of Electronics and Telecommunications, Arvind Gavali College of Engineering, Satara, Maharashtra.
Mr. S. R. Poojara, Assistant Professor, Department of Computer Science & Engineering, Rajarambapu Institute of Technology, Urun Islampur, Maharashtra.
Mr. P. N. Kalvadekar, Associate Professor, Computer Engineering, Sanjivani College of Engineering, Kopargaon, Maharashtra.
Dr. Anil Bhausaheb Pawar, Associate Professor, Computer Engineering, Sanjivani College of Engineering, Kopargaon, Maharashtra.
Mr. Shivaji P. Patil, Assistant Professor, Computer Engineering, Sanjivani College of Engineering, Kopargaon, Maharashtra.
Dr. Thigale Somnath Balasaheb, Assistant Professor, Department of Computer Science and Engineering, SKN Sinhgad College of Engineering, Pandharipur, Maharashtra.
Mr. Sawant Namdev Manik, Assistant Professor, Department of Computer Science and Engineering, SKN Sinhgad College of Engineering, Pandharipur, Maharashtra.
Mr. Dhotre Virendrakumar Anna, Assistant Professor, Department of Computer Science and Engineering, SKN Sinhgad College of Engineering, Pandharipur, Maharashtra.
Mr. Biplab Kanti Das, Assistant Professor, Department of Computer Applications (MCA), Calcutta Institute of Technology, Kolkata.
Mr. Krishna Kumar Jha, Assistant Professor, Department of Computer Applications (MCA), Calcutta Institute of Technology, Kolkata.
Mr. Uma Maheswaran, TG Founder & CEO, Ulagellam PVT Ltd, Trichy, Tamil Nadu.
Mr. Giri Prasad, Managing Director, Opensoftrends Open Source Clouds, Trichy, Tamil Nadu.
<table>
<thead>
<tr>
<th>S.NO</th>
<th>PAPER ID</th>
<th>PAPER TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ICSIE21001</td>
<td>PLANT LEAF DISEASE DETECTION USING MASK-R-CNN</td>
</tr>
<tr>
<td>2</td>
<td>ICSIE21012</td>
<td>VULNERABILITIES AND ATTACKS ON SMART CONTRACTS OVER BLOCKCHAIN</td>
</tr>
<tr>
<td>3</td>
<td>ICSIE21029</td>
<td>WEATHER CLASSIFICATION USING CONVOLUTIONAL NEURAL NETWORK</td>
</tr>
<tr>
<td>4</td>
<td>ICSIE21019</td>
<td>A COMPREHENSIVE SURVEY OF ROUTING ATTACKS AND DEFENSE MECHANISMS IN MANETS</td>
</tr>
<tr>
<td>5</td>
<td>ICSIE21005</td>
<td>A HYBRID MODEL FOR STOCK PRICE PREDICTION USING MACHINE LEARNING TECHNIQUES WITH CNN</td>
</tr>
<tr>
<td>6</td>
<td>ICSIE21028</td>
<td>FEATURE SELECTION AID SPARSE MULTI-CLASS CLASSIFICATION OF DIABETIC RETINOPATHY</td>
</tr>
<tr>
<td>7</td>
<td>ICSIE21047</td>
<td>BUS DETECTION FOR VISUALLY IMPAIRED PERSON</td>
</tr>
<tr>
<td>8</td>
<td>ICSIE21030</td>
<td>MALICIOUS URL PREDICTION USING MACHINE LEARNING TECHNIQUES</td>
</tr>
<tr>
<td>9</td>
<td>ICSIE21020</td>
<td>PLANT LEAVES DISEASE DETECTION USING CNN</td>
</tr>
<tr>
<td>10</td>
<td>ICSIE21036</td>
<td>MRI BRAIN IMAGE ENHANCEMENT USING AN IMPROVED CONTRAST ENHANCEMENT METHOD</td>
</tr>
<tr>
<td>11</td>
<td>ICSIE21010</td>
<td>VIRTUAL SHOPPING USING 3D VR MODELS</td>
</tr>
<tr>
<td>12</td>
<td>ICSIE21007</td>
<td>DEVELOPMENT OF AN INTELLIGENT LENS FOR VISUALIZING ANALOG AND DIGITAL MEASUREMENTS</td>
</tr>
<tr>
<td>13</td>
<td>ICSIE21021</td>
<td>LUNG TUMOR SEGMENTATION IN MEDICAL IMAGE SEQUENCES</td>
</tr>
<tr>
<td>14</td>
<td>ICSIE21009</td>
<td>AN IMPROVED FRAMEWORK OF LIVER DISEASE DETECTION USING SMOTE + ENN</td>
</tr>
<tr>
<td>15</td>
<td>ICSIE21011</td>
<td>HIREDRE - A SYNCHRONOUS SELF-EMOTION ANALYZING WEB-APP FOR INTERVIEW PREPARATION</td>
</tr>
<tr>
<td>16</td>
<td>ICSIE21065</td>
<td>FINGER RECOGNITION AND GESTURE BASED VIRTUAL KEYBOARD</td>
</tr>
<tr>
<td>17</td>
<td>ICSIE21063</td>
<td>EFFICIENT SECURITY FOR SMART GRID APPLICATIONS USING ELLIPTIC CURVE CRYPTOGRAPHY</td>
</tr>
<tr>
<td>18</td>
<td>ICSIE21032</td>
<td>SUSTAINABILITY OF IRRIGATION THROUGH SHALLOW WELLS: A CASE STUDY IN TAMILNADU, INDIA</td>
</tr>
<tr>
<td>19</td>
<td>ICSIE21018</td>
<td>SMART BUILDING MONITORING SYSTEM</td>
</tr>
<tr>
<td>20</td>
<td>ICSIE21006</td>
<td>COVID DISEASE FORECASTING USING MACHINE LEARNING APPROACH</td>
</tr>
<tr>
<td>21</td>
<td>ICSIE21077</td>
<td>NOVEL MATHEMATICAL MODEL FOR TRAFFIC SIGNAL SYSTEM USING ADAPTIVE QUEUE LENGTH METHOD</td>
</tr>
<tr>
<td>22</td>
<td>ICSIE21035</td>
<td>CLOUD-BASED RESTAURANT MANAGEMENT WITH SMART SOLUTION FOR COMBATING COVID-19</td>
</tr>
<tr>
<td>23</td>
<td>ICSIE21017</td>
<td>ENTIRE HOME SURVEILLANCE APPROACH USING PI AND INTELLIGENT CAMERAS WITH MOBILE APP NOTIFICATION</td>
</tr>
<tr>
<td>24</td>
<td>ICSIE21071</td>
<td>SMART WATCH ROBOT FOR ATM MACHINE TO PREVENT THEFT</td>
</tr>
<tr>
<td>25</td>
<td>ICSIE21040</td>
<td>ORPHANAGE RESOURCE LOCATOR USING HAVERSINE FORMULA</td>
</tr>
<tr>
<td>26</td>
<td>ICSIE21050</td>
<td>IMPLEMENTATION OF SHA256 ALGORITHM FOR BLOCKCHAIN BASED VOTING SYSTEM</td>
</tr>
<tr>
<td>27</td>
<td>ICSIE21079</td>
<td>AUTOMATION SOCIETY SECURITY TASK-ASST.</td>
</tr>
<tr>
<td>28</td>
<td>ICSIE21049</td>
<td>CAESAR CIPHER FOR EFFICIENT DATA PRIVACY AND SECURITY</td>
</tr>
<tr>
<td>29</td>
<td>ICSIE21044</td>
<td>SPEAKING SYSTEM FOR MUTE PEOPLE USING HAND GESTURES</td>
</tr>
<tr>
<td>30</td>
<td>ICSIE21080</td>
<td>PEER TO PEER ENCRYPTION FOR SECURE FILE TRANSFER</td>
</tr>
<tr>
<td>31</td>
<td>ICSIE21056</td>
<td>A REVIEW ON AIR QUALITY PARAMETERS FOR AMBIENT POLLUTION MANAGEMENT FRAMEWORK</td>
</tr>
<tr>
<td>32</td>
<td>ICSIE21072</td>
<td>FACE MASK DETECTION USING SINGLE SHOT MULTIBOX DETECTOR AND MOBILENET</td>
</tr>
<tr>
<td>33</td>
<td>ICSIE21088</td>
<td>FRUIT STAGE CLASSIFICATION</td>
</tr>
<tr>
<td>34</td>
<td>ICSIE21002</td>
<td>PREDICTING THE STAGE OF HYPERTENSION USING DATA MINING DECISION TREE CLASSIFIERS</td>
</tr>
<tr>
<td>35</td>
<td>ICSIE21076</td>
<td>LANE LINE DETECTION IN AUTONOMOUS CARS</td>
</tr>
<tr>
<td>36</td>
<td>ICSIE21098</td>
<td>UNDERWATER IMAGE RESTORATION WITH AN ESTIMATION OF BACKGROUND LIGHT AND EQUALIZATION TECHNIQUE</td>
</tr>
<tr>
<td>37</td>
<td>ICSIE21083</td>
<td>AN EFFICIENT WAY OF PREDICTING UNHEALTHINESS OF FROND USING DEEP LEARNING ALGORITHM</td>
</tr>
<tr>
<td>38</td>
<td>ICSIE21122</td>
<td>A SMART METHOD FOR HUMAN ACTION RECOGNITION USING DEEP LEARNING</td>
</tr>
<tr>
<td>39</td>
<td>ICSIE21129</td>
<td>ASL (AUDIO AND SIGN LANGUAGE) CONVERTER</td>
</tr>
<tr>
<td>40</td>
<td>ICSIE21126</td>
<td>EEG-BASED BRAIN-CONTROLLED FOR AUTOMATIC OPERATIONS ON WHEEL CHAIR</td>
</tr>
<tr>
<td>41</td>
<td>ICSIE21116</td>
<td>FUTURE-TREND-INDICATORS-FOR-TRADING-STOCKS USING MACHINE LEARNING</td>
</tr>
<tr>
<td>S.NO</td>
<td>PAPER ID</td>
<td>PAPER TITLE</td>
</tr>
<tr>
<td>------</td>
<td>------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>42</td>
<td>ICSIE21089</td>
<td>A NOVEL ENERGY DETECTION SCHEME FOR SPECTRUM SENSING IN MULTIPLE NETWORK SCENARIO</td>
</tr>
<tr>
<td>43</td>
<td>ICSIE21070</td>
<td>SPAM EMAIL CLASSIFICATION THROUGH NLP</td>
</tr>
<tr>
<td>44</td>
<td>ICSIE21059</td>
<td>CREDIT CARD FRAUD DETECTION USING PREDICTIVE MODELING</td>
</tr>
<tr>
<td>45</td>
<td>ICSIE21117</td>
<td>DESIGN OF ANGLE BASED 27-LEVEL TRINARY LADDER INVERTER USING CROSS COMPILER</td>
</tr>
<tr>
<td>46</td>
<td>ICSIE21152</td>
<td>PREDICTION OF HEART DISEASE USING MACHINE LEARNING ALGORITHM</td>
</tr>
<tr>
<td>47</td>
<td>ICSIE21095</td>
<td>FUZZY AND MACHINE LEARNING BASED ALGORITHM FOR ALZHEIMER’S DISEASE PREDICTION</td>
</tr>
<tr>
<td>48</td>
<td>ICSIE21112</td>
<td>CLASSIFICATION RULE DIAGRAM TO DIAGNOSIS THE TUBERCULOSIS BASED ON SYMPTOMS</td>
</tr>
<tr>
<td>49</td>
<td>ICSIE21134</td>
<td>FIRE EXTINGUISHING TECHNIQUE USING COURSE CALCULATION &amp; PREDICTION ALGORITHM</td>
</tr>
<tr>
<td>50</td>
<td>ICSIE21066</td>
<td>DESIGN AND DEVELOPMENT OF CPAP (CONTINUOUS POSITIVE AIRWAY PRESSURE) USING SMART-PHONE</td>
</tr>
<tr>
<td>51</td>
<td>ICSIE21085</td>
<td>SMART AMBULANCE</td>
</tr>
<tr>
<td>52</td>
<td>ICSIE21151</td>
<td>AN UNIQUE METHODOLOGY FOR CREDIT CARD FRAUD DETECTION BASED ON CONVOLUTIONAL NEURAL NETWORK</td>
</tr>
<tr>
<td>53</td>
<td>ICSIE21131</td>
<td>STREET LIGHT MONITORING AND FAULT ALERT SYSTEM</td>
</tr>
<tr>
<td>54</td>
<td>ICSIE21143</td>
<td>SMART HEALTH MONITORING SYSTEM FOR THE ELDERLY</td>
</tr>
<tr>
<td>55</td>
<td>ICSIE21150</td>
<td>CFST COMPOSITE COLUMNS STUDY ON CONFINEMENT EFFECTS</td>
</tr>
<tr>
<td>56</td>
<td>ICSIE21113</td>
<td>APPLICATION OF STOCHASTIC DIFFERENTIAL EQUATIONS IN RL CIRCUIT USING AUTOREGRESSIVE AND RANDOM RUNGE KUTTA FOURTH ORDER METHOD</td>
</tr>
<tr>
<td>57</td>
<td>ICSIE21157</td>
<td>BLOOD CELL SEGMENTATION AND CLASSIFICATION BY MACHINE LEARNING</td>
</tr>
<tr>
<td>58</td>
<td>ICSIE21103</td>
<td>ASSISTIVE MORSE CODE SYSTEM FOR BLIND INDIVIDUALS</td>
</tr>
<tr>
<td>59</td>
<td>ICSIE21144</td>
<td>DESIGN AND IMPLEMENTATION OF CONNECTED DATALAKE SYSTEM FOR RELIABLE DATA TRANSMISSION</td>
</tr>
<tr>
<td>60</td>
<td>ICSIE21148</td>
<td>DISEASE PREDICTION AND DOCTOR RECOMMENDATION SYSTEM USING MACHINE LEARNING APPROACHES</td>
</tr>
<tr>
<td>61</td>
<td>ICSIE21093</td>
<td>DECENTRALIZED BLOCKCHAIN BASED LAUNDRY APPLICATION</td>
</tr>
<tr>
<td>62</td>
<td>ICSIE21110</td>
<td>FLOOD MONITORING AND ALERT SYSTEM USING GPS, GSM &amp; IOT</td>
</tr>
<tr>
<td>63</td>
<td>ICSIE21119</td>
<td>AN IMPROVEMENT BASED ON ULTRA CAPACITOR WITH DESIGN OF DVR FOR POWER QUALITY</td>
</tr>
<tr>
<td>64</td>
<td>ICSIE21163</td>
<td>EMOTIONAL RECOGNITION SYSTEM USING EEG AND PSYCHOPHYSIOLOGICAL SIGNALS</td>
</tr>
<tr>
<td>65</td>
<td>ICSIE21166</td>
<td>MACHINE LEARNING MODEL TO PREDICT COVID-19 DIAGNOSIS BASED ON SYMPTOMS</td>
</tr>
<tr>
<td>66</td>
<td>ICSIE21180</td>
<td>LIGHT WEIGHT PORTABLE OPERATING SYSTEM</td>
</tr>
<tr>
<td>67</td>
<td>ICSIE21147</td>
<td>CUSTOMER SERVICE TICKETING SYSTEM</td>
</tr>
<tr>
<td>68</td>
<td>ICSIE21111</td>
<td>ANALYSING DEEP LEARNING TECHNIQUES IN MALWARE DETECTION FOR ANDROID APPLICATION</td>
</tr>
<tr>
<td>69</td>
<td>ICSIE21127</td>
<td>TRANSFORMER HEALTH MONITORING AND LINE MAN SAFETY</td>
</tr>
<tr>
<td>70</td>
<td>ICSIE21114</td>
<td>COMPARATIVE ANALYSIS OF MACHINE LEARNING ALGORITHMS IN CROP YIELDING AND PRICE PREDICTION</td>
</tr>
<tr>
<td>71</td>
<td>ICSIE21176</td>
<td>LHS BASED ALARM POINT LOCATOR IN COAL BELT CONVEYOR</td>
</tr>
<tr>
<td>72</td>
<td>ICSIE21207</td>
<td>APPLIED ENGINEERING APPROACHES OF ENERGY BLOCKCHAIN IN ASIA</td>
</tr>
<tr>
<td>73</td>
<td>ICSIE21128</td>
<td>IOT BASED SMART STREET LIGHTING SYSTEM FOR SMART CITY</td>
</tr>
<tr>
<td>74</td>
<td>ICSIE21226</td>
<td>AN INTELLIGENT APPROACH FOR DENTAL DISEASE DETECTION USING FASTER R-CNN METHOD</td>
</tr>
<tr>
<td>75</td>
<td>ICSIE21208</td>
<td>DESIGN AND FABRICATION OF STANDING WHEEL CHAIR</td>
</tr>
<tr>
<td>76</td>
<td>ICSIE21209</td>
<td>DESIGN AND ANALYSIS OF MULTI VEGETABLE CHOPPER</td>
</tr>
<tr>
<td>77</td>
<td>ICSIE21158</td>
<td>DESIGN AND ANALYSIS OF SPUR GEAR TOOTH (ROOT) WITH FILLET &amp; WITHOUT FILLET</td>
</tr>
<tr>
<td>78</td>
<td>ICSIE21193</td>
<td>REAL TIME EARLY DETECTION OF DIABETIC FOOT ULCERATION USING PRESSURE SENSOR WITH TENS</td>
</tr>
<tr>
<td>79</td>
<td>ICSIE21169</td>
<td>FACE MASK MONITORING FOR EDUCATIONAL INSTITUTIONS AND ORGANIZATIONS</td>
</tr>
<tr>
<td>80</td>
<td>ICSIE21196</td>
<td>SMART TRAFFIC SYSTEM-BASED ON OBJECT DETECTION USING MACHINE LEARNING</td>
</tr>
<tr>
<td>81</td>
<td>ICSIE21204</td>
<td>ADVANCEMENT OF EMERGENCY CARE SYSTEM USING IOT TECHNIQUES</td>
</tr>
<tr>
<td>82</td>
<td>ICSIE21184</td>
<td>FABRICATION OF MINI-DIRT BIKE</td>
</tr>
<tr>
<td>S.NO</td>
<td>PAPER ID</td>
<td>PAPER TITLE</td>
</tr>
<tr>
<td>------</td>
<td>------------</td>
<td>------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>83</td>
<td>ICSIE21165</td>
<td>APPLICATION OF ARTIFICIAL INTELLIGENCE IN CYBER SECURITY - A DETAIL SURVEY ON INTRUSION DETECTION SYSTEM</td>
</tr>
<tr>
<td>84</td>
<td>ICSIE21214</td>
<td>AN HOSPITAL APPLICATION INVOLVING DEEP LEARNING METHODOLOGY CALLED MODIFIED RESNET FOR DETECTING COVID-19</td>
</tr>
<tr>
<td>85</td>
<td>ICSIE21183</td>
<td>“ORDER N EAT”- ANDROID APP USED DURING COVID PANDEMIC USING FIREBASE</td>
</tr>
<tr>
<td>86</td>
<td>ICSIE21205</td>
<td>AN EFFICIENT MODEL FOR SQL INJECTION ATTACK AND PREVENTION</td>
</tr>
<tr>
<td>87</td>
<td>ICSIE21120</td>
<td>SIGN LANGUAGE CONVERTOR AND RECOGNITION</td>
</tr>
<tr>
<td>88</td>
<td>ICSIE21237</td>
<td>SOCIAL THEORIES BASED UNSUPERVISED COMMUNITY DETECTION OVER SOCIAL MEDIA.</td>
</tr>
<tr>
<td>89</td>
<td>ICSIE21178</td>
<td>SMART TRASH AND DUST COLLECTION- SEGREGATION ROBOT</td>
</tr>
<tr>
<td>90</td>
<td>ICSIE21132</td>
<td>NON HOMOGENEOUS ROUGH FINITE STATE AUTOMATON</td>
</tr>
<tr>
<td>91</td>
<td>ICSIE21229</td>
<td>SMART GLOVE FOR ELDERLY PATIENTS</td>
</tr>
<tr>
<td>92</td>
<td>ICSIE21236</td>
<td>ATTACK DETECTION USING KNN ALGORITHM</td>
</tr>
<tr>
<td>93</td>
<td>ICSIE21213</td>
<td>RECOMMENDATION MODEL IN DIGITAL MARKETING USING ARTIFICIAL INTELLIGENCE</td>
</tr>
<tr>
<td>94</td>
<td>ICSIE21142</td>
<td>DIAGNOSIS OF DIABETIC RETINOPATHY FROM FUNDAL PHOTOGRAPH</td>
</tr>
<tr>
<td>95</td>
<td>ICSIE21055</td>
<td>TOLL MANAGEMENT SYSTEM USING BLOCKCHAIN</td>
</tr>
<tr>
<td>96</td>
<td>ICSIE21216</td>
<td>DESIGN AND ANALYSIS OF ANKLE EXOSKELETON FRAME</td>
</tr>
<tr>
<td>97</td>
<td>ICSIE21010A</td>
<td>DEEP LEARNING BASED TRAFFIC IDENTIFICATION AND ACCIDENT DETECTION IN REMOTE ENVIRONMENT</td>
</tr>
<tr>
<td>98</td>
<td>ICSIE21190</td>
<td>IMPROVING THE PROGNOSIS OF MEDICINE SYMPTOMS AND SIDE EFFECTS THROUGH COMBINED LEARNING WITH SYNTACTIC STRUCTURE SENTENCES USING MACHINE LEARNING ALGORITHM</td>
</tr>
<tr>
<td>99</td>
<td>ICSIE21268</td>
<td>PREDICTING DRUG INDICATIONS AND SIDE EFFECTS USING DEEP LEARNING AND TRANSFER LEARNING</td>
</tr>
<tr>
<td>100</td>
<td>ICSIE21170</td>
<td>PRESSURE ASSESSMENT AT THE SACRAL REGION FOR DIFFERENT SITTING POSTURES AND BODY MASS INDEX</td>
</tr>
<tr>
<td>101</td>
<td>ICSIE21236</td>
<td>DETECTION OF ACTIVE ATTACKS USING ENSEMBLE MACHINE LEARNING APPROACH</td>
</tr>
<tr>
<td>102</td>
<td>ICSIE21259</td>
<td>AN ANALYSIS OF ORGANIZATIONAL BEHAVIOUR USING K-APPROXIMATION SPACES</td>
</tr>
<tr>
<td>103</td>
<td>ICSIE21252</td>
<td>REINFORCEMENT LEARNING METHOD FOR MODELLING DDOS ATTACKS</td>
</tr>
<tr>
<td>104</td>
<td>ICSIE21160</td>
<td>REAL TIME DEPLOYMENT AND PREDICTING DIFFERENT CROP DISEASES WITHA A MOBILE APPLICATION</td>
</tr>
<tr>
<td>105</td>
<td>ICSIE21244</td>
<td>SPAM CLASSIFICATION IN-MAILS USING MACHINE LEARNING</td>
</tr>
<tr>
<td>106</td>
<td>ICSIE21253</td>
<td>OPTIMAL ECONOMIC DISPATCH USING GENETIC ALGORITHM</td>
</tr>
<tr>
<td>107</td>
<td>ICSIE21106</td>
<td>COMPARITIVE STUDY OVER DIFFERENT MACHINE LEARNING ALGORITHMS ON BREAST CANCER DETECTION</td>
</tr>
<tr>
<td>108</td>
<td>ICSIE21198</td>
<td>PREDICTION AND VISUALIZATION OF MISSING DATA USING DATA ANALYTICS</td>
</tr>
<tr>
<td>109</td>
<td>ICSIE21267</td>
<td>SMART HEADBAND FOR STROKE PATIENTS</td>
</tr>
<tr>
<td>110</td>
<td>ICSIE21256</td>
<td>AI BASED TEAM SELECTION FOR INDUSTRIAL PROJECT</td>
</tr>
<tr>
<td>111</td>
<td>ICSIE21257</td>
<td>EMOTION BASED MUSIC PLAYER</td>
</tr>
<tr>
<td>112</td>
<td>ICSIE21251</td>
<td>DESIGN AND OPTIMIZATION OF MICROSTRIP PATCH ANTENNA WITH POLYGONAL SLOT FOR WIDEBAND APPLICATIONS</td>
</tr>
<tr>
<td>113</td>
<td>ICSIE21254</td>
<td>MOVIE GENRE PREDICTION FROM TWITTER DATA USING MACHINE LEARNING</td>
</tr>
<tr>
<td>114</td>
<td>ICSIE21249</td>
<td>AN INTEGRATED SCIENCE AND TECHNOLOGY DRIVEN CRISIS MANAGEMENT STUDY OF THE NOVEL INVADER - SARS-COV2</td>
</tr>
<tr>
<td>115</td>
<td>ICSIE21171</td>
<td>SMART SECURITY ATM USING FINGERPRINT AUTHENTICATION</td>
</tr>
<tr>
<td>116</td>
<td>ICSIE21228</td>
<td>COLOR CORRECTION OF IMAGES FOR THE COLORBLIND</td>
</tr>
<tr>
<td>117</td>
<td>ICSIE21185</td>
<td>PREDICTING AUTOMOBILE TRIP DURATION USING MACHINE LEARNING</td>
</tr>
<tr>
<td>118</td>
<td>ICSIE21274</td>
<td>CLIQUE NUMBER AND GIRTH OF THE ROUGH CO-ZERO DIVISOR GRAPH</td>
</tr>
<tr>
<td>119</td>
<td>ICSIE21164</td>
<td>COMPUTER-ASSISTED DIAGNOSIS OF DIABETIC RETINOPATHY AND ITS CLASSIFICATION INTO DIFFERENT STAGES</td>
</tr>
<tr>
<td>120</td>
<td>ICSIE21210</td>
<td>DESIGN AND DEVELOPMENT OF MANUAL SEEDLING TRANSPLANTER</td>
</tr>
<tr>
<td>121</td>
<td>ICSIE21242</td>
<td>A NOVEL DEEP LEARNING AIDED CODE SUMMARIZATION USING ABSTRACT SYNTAX TREE</td>
</tr>
<tr>
<td>122</td>
<td>ICSIE21261</td>
<td>SIMULATION OF WIND- SOLAR POWER GENERATION SYSTEM</td>
</tr>
<tr>
<td>S.NO</td>
<td>PAPER ID</td>
<td>PAPER TITLE</td>
</tr>
<tr>
<td>------</td>
<td>------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>123</td>
<td>ICSIE21295</td>
<td>DESIGN OF GRAVITY POWERED LIGHT</td>
</tr>
<tr>
<td>124</td>
<td>ICSIE21287</td>
<td>WAVE ENERGY UTILIZATION WITH KINETIC HARVESTORS FOR SHIP PROPULSION</td>
</tr>
<tr>
<td>125</td>
<td>ICSIE21272</td>
<td>HEART MONITORING SYSTEM USING IOT</td>
</tr>
<tr>
<td>126</td>
<td>ICSIE21086</td>
<td>DIET SUGGESTION BASED ON DEEP LEARNING AND COMPUTER VISION</td>
</tr>
<tr>
<td>127</td>
<td>ICSIE21300</td>
<td>SIMULATION OF IMPROVEMENT OF EFFICIENCY AND THERMAL PROPERTIES OF BATTERY PACKS USING PASSIVE BATTERY BALANCING TECHNIQUE IN MATLAB</td>
</tr>
<tr>
<td>128</td>
<td>ICSIE21314</td>
<td>MANAGEMENT OF SOLAR WATER PUMPING SYSTEM THROUGH IOT &amp; MACHINE LEARNING .</td>
</tr>
<tr>
<td>129</td>
<td>ICSIE21174</td>
<td>TRACKING DEVICE FOR DEMENTIA PATIENTS</td>
</tr>
<tr>
<td>130</td>
<td>ICSIE21284</td>
<td>MACHINE LEARNING BASED BRAIN TUMOR DIAGNOSIS AND STAGE DETECTION</td>
</tr>
<tr>
<td>131</td>
<td>ICSIE21177</td>
<td>LORA BASED FLAW LOCATION DETECTION IN HT LINE USING GSM</td>
</tr>
<tr>
<td>132</td>
<td>ICSIE21269</td>
<td>ROBOTIC SPIDER GLOVE</td>
</tr>
<tr>
<td>133</td>
<td>ICSIE21273</td>
<td>DESIGN OF ENERGY MANAGEMENT SYSTEM WITH PLANT AUTOMATION AND CAVITATION MONITORING IN CHEMICAL PROCESS INDUSTRY</td>
</tr>
<tr>
<td>134</td>
<td>ICSIE21292</td>
<td>AUTOMATED DETECTION OF BRAIN TUMOR MRI IMAGES USING DEEP LEARNING TECHNIQUES</td>
</tr>
<tr>
<td>135</td>
<td>ICSIE21271</td>
<td>DETECTING OF MAJOR OR MINOR IN RESTRICTED AREAS USING DEEP LEARNING</td>
</tr>
<tr>
<td>136</td>
<td>ICSIE21203</td>
<td>SMART DRIVER ASSISTANT USING ROAD SIGN RECOGNITION</td>
</tr>
<tr>
<td>137</td>
<td>ICSIE21326</td>
<td>ENHANCING THE GROWTH OF LACTOBACILLUS SPECIES AND STUDY OF NUTRITIONAL PROFILE IN VARIOUS SOURCES OF CURD</td>
</tr>
<tr>
<td>138</td>
<td>ICSIE21301</td>
<td>A DATA-DRIVEN DETECTION OF SENSITIVITY IN PERSONAL DATA</td>
</tr>
<tr>
<td>139</td>
<td>ICSIE21188</td>
<td>INTELLIGENCE FACE MASK AND BODY TEMPERATURE RECOGNITION SYSTEM</td>
</tr>
<tr>
<td>140</td>
<td>ICSIE21099</td>
<td>HEART DISEASE PREDICTION USING MACHINE LEARNING TECHNIQUES</td>
</tr>
<tr>
<td>141</td>
<td>ICSIE21099A</td>
<td>ENHANCED PERFORMANCE OF TIN HALIDE PEROVSKITE SOLAR CELL MODEL USING SCAPS-1D</td>
</tr>
<tr>
<td>142</td>
<td>ICSIE21284A</td>
<td>ENHANCED DATA PRIVACY PRESERVATION MODEL FOR MOBILE CROWD SENSING SYSTEM USING BLOCKCHAIN TECHNOLOGY</td>
</tr>
<tr>
<td>143</td>
<td>ICSIE21135</td>
<td>CONVECTION HEAT TRANSFER OVER FIVE HEATED BLOCKS IN A HORIZONTAL CHANNEL WITH AND WITHOUT LONG BAFFLES</td>
</tr>
<tr>
<td>144</td>
<td>ICSIE21319</td>
<td>POWER QUALITY IMPROVEMENT IN DVR AND DSTATCOM USING MULTILEVEL INVERTER WITH LESS NUMBER OF SWITCHES</td>
</tr>
</tbody>
</table>
1. PLANT LEAF DISEASE DETECTION USING MASK-R CNN

Janga Pavan Krishna Reddy, Jakkamsetti Bharath, Kalicheti Sathvika, P. Ranjana
CSE
Hindustan Institute Of Technology And Science
Chennai, India

In agriculture disease detection is important for a productive crop yield. So many diseases will effect crop quality of tomatoes, potatoes and pepper some of them are bacterial spot, septoria leaf spot and yellow curved leaf diseases. To classify diseases of plant by detecting symptoms of leaf disease through automatic methods. This paper presents a Mask-R Convolution Neural Network (Mask-R CNN) algorithm for tomato leaf, pepper leaf and potato leaf. In this we are using plant village dataset which contains more than 1000 images of potato, tomato and pepper leaves of each plant along with disease symptoms. With the help of Mask-R CNN classification and extraction done automatically. Mostly information of color for the research of plant leaf disease detection. Based on RGB components filters are used in our model for the three channels. The results of proposed method for the experiment will be recognized efficiently for different types of potato, tomato and pepper leaves. This technique of detecting plant leaf disease detection using Mask-R CNN will help small holder farmers for detecting diseases of plants in very efficient manner.

Key words – Convolution Neural Networks, Classification, disease, Pre-processing

2. VULNERABILITIES AND ATTACKS ON SMART CONTRACTS OVER BLOCKCHAIN

Baddepaka Prasad, S.Ramachandram
Computer Science and Engineering
Osmania University
Hyderabad, India

Smart contracts are pieces of code that run under specific conditions and are stored on the blockchain. Crypto currency, voting, digital rights, escrow, music rights management, health care applications, IoT, record keeping, smart land and e-governance are some of the applications of smart contracts. In these applications, smart contracts are important, but there are attackers. The DAO assault, Governmental, Dynamic libraries, Parity Multisig, King of the Ether Throne, Rubixi and Batch Transfer Overflow are examples of adversaries exploiting smart contracts due to vulnerabilities in smart contracts and draining millions of dollars in a matter of years. As a result of these factors, thorough research into smart contract attacks is needed, as well as effective detective and preventive methods. In this paper, we focus on smart contract vulnerabilities, which are the source of the attacks. Current research on these attacks has only covered a few of the flaws, and there is a need to cover all smart contract flaws over Ethereum through blockchain. The taxonomy of vulnerabilities is described below, along with smart contract code and investigations into how attackers are leveraging these vulnerabilities in Smart Contracts.

Keywords—Attacks, Ethereum, Smart Contracts/savvy contracts, Vulnerabilities and Attackers.

3. WEATHER CLASSIFICATION USING CONVOLUTIONAL NEURAL NETWORKS

Kumari S1A, Ramya S2a, Ramya Balu2b, Vaishali M2c, Rasika K G2d
1Associate Professor, Panimalar Engineering College, Chennai
2B. Tech IT, Panimalar Engineering College, Chennai

A real-world weather biometric system that detects and describes weather condition in image data is an emerging subject in machine vision. These systems develop computer vision approaches for the classification of weather condition. Advances in artificial intelligence mean applications increasingly can take on image recognition capabilities that allow them to identify given input image type of
weather classification like sunny, rainy etc, Deep learning is a vast field and narrow focusing a bit and takes up the challenge of solving an Image Classification process. To propose a deep learning algorithm by TensorFlow or keras by finding the image classification of weather reports by convolution neural network

Keywords – TensorFlow, convolutional neural network, deep learning, image classification.

4. A COMPREHENSIVE SURVEY OF ROUTING ATTACKS AND DEFENSE MECHANISMS IN MANETS

Deeptha R.
Information Technology
SRM Institute of Science and Technology

Mobile Ad Hoc NETwork (MANET) is a hot research topic among researchers due to its flexibility and independence of network infrastructures. MANET's unique characteristics, such as dynamic network topology, limited bandwidth, and battery resources, make routing a challenging task. Currently, several efficient routing protocols based on topology and geographical information have been proposed for MANET. However, most of them assume a trusted and cooperative environment. In the presence of adversaries, the MANET routing protocols are vulnerable to various kinds of attacks. Recently, several research efforts have been made to counter these adversarial activities. This survey investigates the state-of-the-art of security issues in MANET. This paper comprehensively discusses the existing attacks in the network layer, various categories of defense mechanisms in the literature, and their benefits and defects when applying to MANET. This paper also classifies the attacks and defense mechanisms based on the routing nature, such as topological and geographical. It also discusses intrusion detection systems as well as anonymous routing in MANETs. Finally, it discusses the challenges and future directions in routing security over the MANET environment.

Keywords – MANET, Routing, Attacks, Defense Mechanism, Intrusion Detection

5. A HYBRID MODEL FOR STOCK PRICE PREDICTION USING MACHINE LEARNING TECHNIQUES WITH CNN

Sarvesh S, V. Vaishnav, Sidharth R. V, Thangakumar J, Sathyalakshmi S
CSE
Hindustan Institute Of Technology And Science
Chennai, India

Predicting the stock market can be a great tool for both long-term and short-term investors to plan and book profits, or to stop losses early than too late. Forecasting accuracy is the most important factor in selecting any forecasting methods. Research efforts in improving the accuracy of forecasting models are increasing since the last decade. The appropriate stock selections those are suitable for investment is a very difficult task. The key factor for each investor is to earn maximum profits on their investments. In order to forecast stock markets, we used deep learning and, more specifically, one of the most common recurrent neural networks: LSTM. Since the prediction of stocks cannot be easily specified, it can be separated into two parts: simple analysis (sales, revenue, income, etc.) and technical analysis (historical price, VWAP, etc.). This means multiple variables can affect stock price trends, but here we have drawn a predictive time series on the historic price of a given stock. We've been using a common RNN, Long Short Term Memory. Provided that we feed our model with the data form and that an RNN is capable of retaining data unlike the traditional feed-in of neural networks (single data points such as images might be processed only), an LSTM is the most appropriate for these kinds of problems. LSTM can quickly process a whole data series and adds a memory cell, which allows the network to link memories and feedback remotely efficiently. In this example we have generated a series of sequences in order to use time steps to predict a given price. The final predicted model will be displayed in a web-application, so this will be user-friendly.
Keywords— stock market, LSTM, price prediction, algo-trading.

6. FEATURE SELECTION AID SPARSE MULTI-CLASS CLASSIFICATION OF DIABETIC RETINOPATHY

Anisha S S
Communication Systems
CSI Institute of Technology, Thovalai

Diabetic Retinopathy (DR) is considered as the complication of Diabetes Mellitus that damages the blood vessels in the retina. This is characterized as a serious vision-threatening problem in most of the diabetic subjects. Effective automatic classification of diabetic retinopathy is a challenging task in the medical field. The feature extraction plays an eminent role in the effective classification of disease. The proposed work focuses on the extraction of Haralick and Anisotropic Dual-Tree Complex Wavelet Transform (ADTCWT) features that can perform reliable DR classification from retinal fundus images. The Haralick features are based on second-order statistics and ADTCWT reliably extracts the directional features in images. To improve the performance in proposed system we have used optimal feature selection using Particle swarm optimization algorithm to be used. The proposed work concentrates on both binary classification as well as multiclass classification of DR. The performances of the classifiers are analyzed by comparing specificity, precision, recall, False Positive Rate (FPR) and accuracy values for each classifier.

7. BUS DETECTION FOR VISUALLY IMPAIRED PERSON

Dr. ANNI PRINCY.B, REKA.N, RENUKA.K, SHARMILA.N
1B.Tech. IT, Panimalar Engineering College

BUS DETECTION FOR VISUALLY IMPAIRED PERSON project is to make visually challenged people travel through public transport without depending on others. They face many problems to travel one place to another as they cannot see. For this problem we find a solution by using IOT (Internet Of Things) as main domain. RFID (Radio Frequency Identification) Sensor used to alert the visually challenged person in the bus station/stop regarding the bus arrival. A voice synthesizer APR9600 is used to convert the bus routes into audio output via speaker. The bus driver get alerted regarding the presence of visually challenged person by glow of LED light and buzzer sound. IOT is used to update the blind boarded bus details for the guardian of that blind person. DC motor shows the status of the bus riding and stops when bus stand reaches. The touch sensor TTP223 is used for updating in IOT when the bus has stopped for boarding and after the blind person takes the seat, only then the bus starts to move again. After the allocated seat for blind person is taken, the guardian is updated by the use of IOT regarding the bus boarded details of the visually impaired person.
Keywords: IOT, RFID, Voice synthesizer, DC motor, Touch sensor, Guardian, LED light.

8. MALICIOUS URL PREDICTION USING MACHINE LEARNING TECHNIQUES

Harsha Vardhan Sai Aalla, Nikhil Reddy Dumpala, M.Eliazer
Computer Science and Engineering
Srm Institute of Science and Technology
Chennai, India

The usage of malicious website is a serious security threat faced by users while surfing data in internet. It is offensive and it belonging to criminal activities. Requirement of safeguard activities to help end-user is much needed. The need of understanding about protocol, uniform resource locator (URL) and other features of webpage are non-negligible. The purpose of this work is to find malicious webpage from lexical and to resolve uncertainties faced by users. The study upon identifying features of websites is vulnerable and how malicious attack will occur is reported. To maximise the accuracy
in prediction, machine learning technique is intruded. In recent years Phishing, botnet and malicious threats are more common in internet world and by disguising URL to trust it as non-offensive one. In concentrating with future concern and providing solution to real time problems faced by end-user the proposed work initiate two different algorithms namely decision tree and logistic regression. A total of 420000 webpages are taken as input data which included both affected and legitimate website. The time taken for prediction and accuracy is calculated in the form of testing data set. Thus logistic regression achieved higher efficiency with accuracy of 97.5% in an effective manner.

Keywords: Malicious Website; Uniform Resource Locator (URL); Phishing; Botnet

9. PLANT LEAVES DISEASE DETECTION USING CNN

1st S.Irin Sherly, 3rd S.Santhiya, 2nd S.Ramya, 4th V.Vasantha
Dept of IT
Panimalar Institute of Technology
Chennai, India

Smart farming system is an innovative technology that helps improve the quality and quantity of agricultural production in the country. Plant leaf disease is one of the major threats to food security because it dramatically reduces the crop yield. Accurate and precise diagnosis of diseases has been a significant challenge and the recent advances in computer vision made possible by deep learning has paved the way for camera-assisted disease diagnosis for plant leaf. It described the innovative solution that provides efficient disease detection and deep learning with convolutional neural networks (CNNs) has achieved great success in the classification of various plant leaf diseases. A variety of neuron-wise and layer-wise visualization methods were applied using a CNN, trained with a publicly available plant disease given image dataset. So, it is observed that neural networks can capture the colors and textures of lesions specific to respective diseases upon diagnosis, which resembles human decision-making.

Keywords— Disease Detection, deep learning, TensorFlow, Convolutional neural networks

10. MRI BRAIN IMAGE ENHANCEMENT USING AN IMPROVED CONTRAST ENHANCEMENT METHOD

A.Vijaya Lakshmi1, Vella Satynarayana2, Dr. P. Mohanaiah3
1Associate Professor, Department of ECE, Vardhaman College of Engineering, Hyderabad, Telangana, India
2Associate Professor, Department of ECE, Aditya Engineering College, Surampalem, A.P, India
3Professor, Department of ECE, N.B.K.R Institute of Science& Technology, Vidyanagar.

The uncontrollable cells growth in the brain portion is the main reason for cancer deaths nowadays. So, effective detection of brain tumors is more important in the medical field to analyze the tumor portion. Detecting tumors prior and diagnosis of tumors can play a major role in preventing human death due to brain tumors. To detect the tumor portion, many segmentation and classification methods have been proposed. For the effect segmentation process, enhancing brain images is necessary. In this present paper, Magnetic resonance imaging (MRI) brain images have been taken as test images. The proposed enhancement method has two major phases. The first phase contains a regularization process in two steps to equalize the test images' intensities, and the second phase contains a mapping process of two steps to enhance the contrast of the image and remap their intensity values to the natural dynamic range.

Keywords: Segmentation, Brain tumor, Magnetic resonance imaging (MRI), Enhancement.
11. VIRTUAL SHOPPING USING 3D VR MODELS

A. Sasank Reddy, Santosh R, G. Nagendra, Thangakumar J
Associate professor, Computer Science and Engineering
Hindustan Institute of Technology and Science
Chennai, India

From past few years, lot of changes have been placed in online Shopping. E-commerce and online shopping are now getting popular in recent time. Virtual shopping is gradually setting up its place in the modern way of shopping. Therefore, this paper presents a new type of shopping using 3D models. In the real world, we must visit the shops physically to shop for products. By using our project, we can shop for products without visiting the store in the real world. We will get the same experience as shopping in a real world store. We can shop for the required products with comfort and make the payment at our convenience. We can get the information about the product we like to buy from the seller using voice chat.
Keywords—Online shopping, Virtual reality, 3d, Virtual environment, E-commerce.

12. DEVELOPMENT OF AN INTELLIGENT LENS FOR VISUALIZING ANALOG AND DIGITAL MEASUREMENTS.

Banavathu Rakesh, Aman Preet Singh, Mr. Mukul Varshney
Dept. of Electrical and Electronics Engineering
Amity University, Uttar Pradesh
Noida, India

The main intention of this paper is to introduce a new device with unmatched scope of growth in future and in present times. The device discussed in this paper is known by the name Intelligent lens for Voltage and Current measurements). The main goal behind making this device is to avoid accidents which is caused during testing. Usually the observer faces problems while taking measurements, the sample probes are placed on the points and have to see the measurements at a same time which leads to improper measurements and also consumes a lot of time. To overcome this problem, we introduce this intelligent lens in which voltage and current readings will be displayed. The frame is consisting of a cardboard box which includes all the circuitry along with the OLED display and the lens which is used for the reflection of measurements. This device is easy to handle on the ears along with the glasses and allow the observer to view the measurements.
Keywords—VI-meter, OLED, Lens etc.

13. LUNG TUMOR SEGMENTATION IN MEDICAL IMAGE SEQUENCES

S. Irinsherly1, D. Kavitha2, D. Sneha3, V. Jyothsana4
1 Assistant Professor, Department of Information Technology, Panimalar Institute of Technology
2, 3, 4 Student, Department of Information Technology, Panimalar Institute of Technology

Cancer is a disease in which cells in the body grow out of control. Lung cancer is the leading cause of cancer death and the second most diagnosed cancer in both men and women in the United States. Cigarette smoking is the number one cause of lung cancer. Lung cancer also can be caused by using other types of tobacco, breathing secondhand smoke, being exposed to substances such as asbestos or radon at home or work, and having a family history of lung cancer. It is one of the cancers which have the highest mortality rate in the world. Each year, the morbidity and mortality of lung cancer increase steadily. Computed tomography (CT) is the widely used imaging method for screening, diagnosing, staging, and even prognosis assessment of lung cancer. The proposed system focus on interactive tumor segmentation of medical image sequences using deep neural network. The proposed work utilizes pattern based classification using neural network function. Fuzzy c means clustering is designed in the proposed area. The feature selection is performed which includes Gray Level Co-
Occurrence Matrix (GLCM). The feature selection aims at selecting the most relevant feature subset based on certain evaluation criteria. Finally the deep neural network is used to check whether the input image is normal or abnormal.

Keywords— Lung Tumor, Deep Neural Network, Fuzzy c means clustering, Segmentation, Back propagation Technique.

14. AN IMPROVED FRAMEWORK OF LIVER DISEASE DETECTION USING
SMOTE + ENN

1st N Shubhankar
Computer Science and Engineering
SRMIST
Kattankulathur, TN, India
2nd Mayank Gupta
Computer Science and Engineering
SRMIST
Kattankulathur, TN, India
3rd M Gayathri
Computer Science and Engineering SRMIST
Kattankulathur, TN, India

The diagnosis of liver disease at a preliminary stage is consequential for convalescent treatment. It is a demanding task for medical researchers to predict the early stages’ condition due to indistinct symptoms. More often than not, the symptoms become evident when it is too late. Furthermore, with the rise in the number of tests, the demands for faster and more accurate test systems have also risen. To overcome this issue, machine learning classification algorithms have been implemented on various datasets of liver patients. However, these datasets have a disproportionate number of cases for each class, making the model biased. We aim to solve this imbalance by applying a hybrid approach of SMOTE oversampling and Edited Nearest Neighbour undersampling techniques, which provide much cleaner data due to aggressive undersampling by ENN.

Keywords- Classification Algorithm, Liver diseases, Machine Learning, Imbalance dataset, SMOTE-ENN.

15. HIREREADY - A SYNCHRONOUS SELF-EMOTION ANALYZING WEB-APP
FOR INTERVIEW PREPARATION

Aman Jain
Final Year Student, CSE Department
SRM Institute of Science and Technology
Chennai, India

Aayan Malhotra
Final Year Student, CSE Department
SRM Institute of Science and Technology
Chennai, India

Dr. M. Aruna
Asst. Professor, CSE Department
SRM Institute of Science and Technology
Chennai, India
The main motivation of this paper is to investigate and implement a forefront model in field of emotion or feeling acknowledgement. We decided to look for the text, sound and video inputs of a person and based on this, we build up a group of models that accumulates the data from each and every source and shows it to ourselves in a very reasonable and interpretable way. We are combining a Facial Expression Recognition model, Speech-based Emotion Recognition model and a Text-Mining based Classification model together with implementations over a Web Application hosted on a server, which ultimately will compare the user’s input results with others over the database/server using the database connectivity feature. This model shall also switch between various algorithmic models for example - SVM and CNN accordingly based on the data input and would give more accurate results than others. We are mainly targeting this model to serve as a self-analysing tool for our users so that before their actual virtual interviews, they can prepare themselves accordingly in the real time frame. In this process, the users will be presented up with a question for which they have to answer it as they will do in the main interview itself. And hence the results would be more natural and more accurate. In future, this web application can become a very helpful and useful app for both, freshers and already working employees who want to feel hire ready, confident and gain experience of the hiring process.

Keywords— Speech Emotion Recognition, Facial Expression Recognition, Text-Mining Analysis, Machine Learning, Convolutional Neural Network

16. FINGER RECOGNITION AND GESTURE BASED VIRTUAL KEYBOARD

RIYA SUNIL M1a, VIVEKA B1b, YAKSHANDHA AADHIRAI P1c, SHAHITHA BANU S1d, S.MARY REXCY ASHA I e
1B.Tech. IT, Panimalar Engineering College

Hand gesture recognition is very significant for human-computer interaction. In this work, we present a novel real-time method for hand gesture recognition. In our framework, the hand region is extracted from the background with the background subtraction method. Then, the palm and fingers are segmented so as to detect and recognize the fingers. Finally, a rule classifier is applied to predict the labels of hand gesture. The experiments on the data set of 1300 images show that our method performs well and is highly efficient. Moreover, our method shows better performance than a state-of-art method on another data set of hand gestures.

17. EFFICIENT SECURITY FOR SMART GRID APPLICATIONS USING ELLIPTIC CURVE CRYPTOGRAPHY

Dr.Sivasankari Narasimhan
Department of ECE
Mepco Schlenk Engineering College
Virudhunagar District, India

Jeyasurya
Department of ECE
Mepco Schlenk Engineering College
Virudhunagar District, India

Rajin
Department of ECE
Mepco Schlenk Engineering College
Virudhunagar District, India

In the security based smart applications, there is the need for authentication to maintain the confidentiality and safety of the user details. Elliptic Curve Cryptography is the cornerstone of the embedded applications. Elliptic Curve Cryptography (ECC) provides such security with low key size.
The most time-consuming operation in ECC is point multiplication. After careful implementation on point multiplication, there are many possibilities for side channel attacks such as timing attack in the communication channels by measuring the time for one particular point multiplication. In order to reduce the vulnerability of side channel attack the point multiplication is implemented with Gaussian integer technique which is a complicated key expansion algorithm. Gaussian integers are the subset of complex numbers. Gaussian integer expansion is beneficial to reduce the attacks and the memory requirements of a secure hardware implementation. This paper represents the implementations with Raspberry pi kit as client and server node. A secure one-time password for every transaction is encrypted with ECC algorithm with reasonable time duration to minimize the side channel and brute force attacks. Even though, point multiplications require more time, gaussian integer multiplication requires less time, transactions by one time password requires 1.09 seconds for its transaction from server to client.

Keywords— Elliptic Curve Cryptography, Security, Raspberry Pi, Point multiplication

18. SUSTAINABILITY OF IRRIGATION THROUGH SHALLOW WELLS: A CASE STUDY IN TAMILNADU, INDIA

J. John Alexander, Sarath Kumar S, Kishore Kumar N, Vishwa J, Sai Ashwin B
Student
Department of Civil Engineering
KCG College of Technology
Chennai, India

The importance of role of irrigation in developing countries is widely recognized for economic development and food security. It impacts growth of a nation and contribute to the wellbeing of the people. In India, since independence agriculture has been the primary source of income and a major sector employing vast majority of people till date. Shallow wells play a very important role in irrigating vast majority of area as it is affordable to even marginal farmers. Ground water levels have been greatly affected by increase in population, urbanization, growth of industries, consuming level of food and energy demands. It can directly impact the agricultural sector and hence impact economy. This paper analyses the sustainability of such wells through a case study demonstrating the use of statistical methods to derive useful information. The results indicate statistical methods can provide useful insights into the sustainability of shallow wells. Proper management strategies that can lead to sustainability have been suggested.

Keywords— Sustainability, Shallow wells, Irrigation, Ground water.

19. SMART BUILDING MONITORING SYSTEM

Mr. J. Bino
Dept of ECE
St. Joseph’s Institute of Technology
Chennai, India

CASANDRA JOSEPHINE FERNANDO
Dept of ECE
St. Joseph’s Institute of Technology
Chennai, India

Monitoring existing reinforced concrete buildings at the large-scale is a complex issue for holders and administrators that are responsible for the user safety. Such operations can be simplified by using wireless communication technology. People's lives have undergone great changes due to this wireless technology. In recent years, the comfort and safety of the building environment have become a universal concern. However, building fire and earthquake is the greatest threat to building safety. In consideration of the current issues on building security, the design applies the important part, the
wireless sensor network technology to building fire safety monitoring system and earthquake monitoring by establishing the wireless sensor network using GSM. This system also uses a load cell to analyze the building for over weight. The temperature sensor used in the system will detect the atmospheric and object temperature. The alert is sent to the controller through SMS and also through the web page. The system is continuously monitored using serial monitoring and buzzer alert is given when the values exceed the threshold value.

Keywords—Building monitoring, Buzzer, UART, GSM, Alert message

20. COVID DISEASE FORECASTING USING MACHINE LEARNING APPROACH

Mr. Sangram Sanjayrao Dandge
Research Scholar
School of Computing Science and Engineering
VIT Bhopal University, India.

Dr. Pon Harshavardhanan
Associate Professor
School of Computing Science and Engineering
VIT Bhopal University, India.

In terms of peri-operational performance, the estimation systems based on AI (ML) have shown their centrality for improving dynamics in future operation. For some time ML models have been used in several fields of implementation involving identifiable evidence and priority for antagonistic objects. Some methods of anticipation are well used for working with prediction problems. This study indicates that ML models are capable of conjecturing the quantity of imminent COVID-19 patients that is by and by seen as potential threat to humanity. As COVID-19 has now had a tremendous effect on the planet, and in excess of 8 million individuals in excess of 100 nations are tainted. To contain its spread, various nations distributed control measures. Nonetheless, it not known when the plague will end in worldwide and different nations. Anticipating the pattern of COVID-19 is a critical test. By and large, there are distinctive guaging models accessible yet specific, four standard estimating models, for example, Concentrated in speculation of undermining variables of the COVID-19 are the least absolute Shrinkage and Selection Operator (LASSO), Support Vector Machine (SVM), Exponential Sweep (ES) and Linear Regression (LR). In the paper report, the use of these methods to cope with the COVID-19 pandemic flow situation is a promising aspect, just as the prevention of Covid infection model is proposed.

Keywords: ML, COVID-19, Modeling, Forecasting.

21. NOVEL MATHEMATICAL MODEL FOR TRAFFIC SIGNAL SYSTEM USING ADAPTIVE QUEUE LENGTH METHOD

Dr. Sitadevi Bharatula
ECE Dept, Aarupadai Veedu Institute of Technology
Vinayaka Mission Research Foundation
Chennai, India

Thomson Thampi
ECE Dept, Aarupadai Veedu Institute of Technology
Vinayaka Mission Research Foundation
Chennai, India

Abhishek M D
ECE Dept, Aarupadai Veedu Institute of Technology
Vinayaka Mission Research Foundation
Chennai, India

Anto Varghese
ECE Dept, Aarupadai Veedu Institute of Technology
In the present day traffic signal system, the time cycle is fixed which causes congestion most of times. Research works carried out in this subject area so far focused on finding good estimate for the delay experienced by vehicles. In this paper, a novel technique based on adaptive queue length is proposed that will help to dynamically switch the traffic depending on the traffic situation and helps to reduce the congestions and ensures smooth traffic flow. Congestion problems at the intersection point can be minimized using the proposed method in which traffic signals can adaptively switch traffic lights according to the prevailing scenario. Mathematical analysis is carried out to determine the number of vehicles arrive at the junction which will be used for switching of traffic signals according to the traffic. For the determination of arrival rate of vehicle, Poisson’s distribution is used and mathematical equations are derived in this research work. The duration for which green light should alter/change exactly according to the number of vehicles present at the intersection has been derived from the mathematical analysis proposed in this method. To justify the mathematical analysis, simulation of heavy load scenario is done using software tools, and results shows that the proposed algorithm works efficiently and minimize the delay as compared to the pre-timed traffic signal. The proposed technique, by dynamically switching the traffic according to the prevailing traffic situation, helps to eliminate traffic congestion and delay to a large extent.

Keywords— adaptive traffic signal control, adaptive queue length, fixed-cycle traffic-light, Poisson’s distribution, Vanet model.

22. CLOUD-BASED RESTAURANT MANAGEMENT WITH SMART SOLUTION FOR COMBATING COVID-19

Himanshu Patil1, Bhupesh Rajpurohit2, Farhan Keshwani3, Nazneen Pendhari4
1Student, Scholar: Dept of Comp Engg, M.H. Saboo Siddik Engineering College Mumbai, India
2Student, Scholar: Dept of Comp Engg, M.H. Saboo Siddik Engineering College Mumbai, India
3Student, Scholar: Dept of Comp Engg, M.H. Saboo Siddik Engineering College Mumbai, India
4Professor: Dept of Comp Engg, M.H. Saboo Siddik Engineering College Mumbai, India

As time goes, life is becoming faster and faster. Restaurant industries need to keep up with the drastic changes. They need a real-time management system to keep up with the customers. For the same, we propose a Cloud-based Restaurant Management system. It eliminates the disadvantages of conventional systems. Customers can go through the application for browsing the food menu by scanning the QR code from the table and can place food orders with minimum contact. In addition, it makes online food ordering hassle-free. Customers can check the status of their order and can give feedback on it, which will help to make improvements in the services provided. Customers can opt for different payment options for paying e-bills. Our system additionally provides an account to the restaurant administrators. This helps administrators centrally manage various branches and maintain their reports. Restaurant admin can manage menu, order, and discount dynamically. Our system automates most of the functions of restaurants.

23. ENTIRE HOME SURVEILLANCE APPROACH USING PI AND INTELLIGENT CAMERAS WITH MOBILE APP NOTIFICATION
Home surveillance aims to allow the homeowners to observe their home at any time virtually from any location. Home automation has increased in popularity in recent years as a result of its low cost and ease of use, through smartphone and tablet connectivity. Homeowners who want to save money often opt for a home security provider's simple kit. For instance, criminals may find an unprotected entry point into the home if there is only a front and backdoor sensor. By taking a tour around the perimeter of the home to spot any security weaknesses and order the required equipment pieces to protect all areas. In this project the home is protected with multiple Raspberry Pis that communicate among themselves to accomplish a common goal. The beginning may be by building a case for security with an emphasis on the lack of flexibility of commercially available systems — that’s where Raspberry Pis are brought to the rescue. Also, this interoperable system will involve Raspberry Pi, cameras and a mobile application for alert by predicting the presence of unknown person. The algorithms used are Single shot multi-box detector algorithm for face detection, Mobile facenet algorithm for face recognition and Image ZMQ algorithm for image transportation. A mobile application is developed using react native to enable live streaming and options are given for the user to alert the police, lock the door or can even ignore when an unknown trespasser enters the property. As a result, the solution is flexible, affordable, and interoperable with other IoT devices and services that are worth paying for.

Keywords—Home surveillance, Face detection, ZMQ Algorithm, SSD Algorithm, Neural Networks, mobile app react native

24. SMART WATCH ROBOT FOR ATM MACHINE TO PREVENT THEFT

S.Sharanyaa
Department of Information Technology
Panimalar Engineering College
Chennai, Tamilnadu, India

B.Gabriella Dhashini
Department of Information Technology
Panimalar Engineering College
Chennai, Tamilnadu, India

V. Chandana
Department of Information Technology
Panimalar Engineering College
The despair of the Indian banking sector is not limited to the banks as even ATMs are not impervious to incidents of theft and rob. The prime purpose of an Automated teller Machine (ATM) security system is to yield solutions that would provide protection from theft happening in ATMs. Around Rs 54crore has already been lost in ATMs, in-branch or in-transit phase for scheduled commercial banks and a few financial institutions (FIs) in the current fiscal year till December 2019. To overcome this problem, we will arm the ATM with a camera module fixed in the room to perform constant surveillance. The camera on recognizing abnormal actions from the human trying to breach the ATM an alert notification is sent to the police. In this paper, the ATM will be armed with a camera module fixed in the room to perform constant surveillance through deep learning that uses Mobile net SSD algorithm for human detection which is an innovative object recognition model. The camera on recognizing abnormal actions from the human trying to breach the ATM an alert notification is sent to the police, to prevent the thief from escaping. Thus, this paper successfully provides a solution to prevent and provide evidence of an ATM theft.

Keywords: Human Detection, Mobile net SSD, Abnormal actions, Alert Notification

25. ORPHANAGE RESOURCE LOCATOR USING HAVERSINE FORMULA

Madhumithaa S R
Computer Science and Engineering
Hindustan Institute of Technology and Science
Chennai, India

Johari D S
Computer Science and Engineering
Hindustan Institute of Technology and Science
Chennai, India

Jessica Magdalene C
Computer Science and Engineering
Hindustan Institute of Technology and Science
Chennai, India

Thangakumar J
Computer Science and Engineering
Hindustan Institute of Technology and Science
Chennai, India

The aim is to create a location-based web application which enables to donate both money and necessary materials by providing a two-way communication platform for the orphanage to post its requirements and for the donor to view what exactly is required by the orphanage to make useful donations to the orphans. We have used Haversine formula to locate the nearby orphanages accurately thus reducing the manual work of both the resource donator and resource receiver. Modules to make payment donations online have been added apart from contacting the orphanage to donate the
necessary goods. Search filter included to view the orphanages based on the requirement posted. An admin module has been included to verify the authenticity of each orphanage that is being registered in our web application with proper proofs and documentation. The concept of using an app to make and receive donations will have a broader approach in lesser time compared to other apps and websites.

Keywords— location-based web application, Haversine formula

26. IMPLEMENTATION OF SHA256 ALGORITHM FOR BLOCKCHAIN BASED VOTING SYSTEM

DR. LINDA JOSEPH, DR. M. SAMBATHI, E. SUPRIYA, THADALA SHRI SHIVA RAMA BHUSHAN, MENATI NAGAVERMA

Department of Computer Science and Engineering Hindustan Institute of Technology and Science Chennai, India.

One of the fundamental features of democracy is that it gives the power to its citizens to choose their representatives by voting in the election. And this power of the citizens can only be protected, if a fair election is conducted throughout the country. In the current system, electronic machine or documenting on paper are two alternatives available. In our proposed system, It aims to over comes some of the limitations of existed causes and evaluates some of the popular block chain frameworks. Implementation of blockchain guarantees transparency and immutability. Along with that it also improves security as it cannot be hacked easily. It also exercises features like decentralized ownership, the immutability of chain, anonymity and distributed ledger. The application is designed in a way in such a way so that the intricacies of the underlying architecture is hidden from the user. The government approved Aadhaar card to every citizen which will identify them uniquely. This Aadhar cards are linked to mobile number. OTP will be sent to the registered mobile number and with that only the voter can cast the vote. Thus, This paper aims to full fill the following objectives a) verify of vote casting b) Secure casting of vote c) Online voting.

Index Terms— Blockchain, Online voting, E-voting, Distributed ledger.

27. AUTOMATION SOCIETY SECURITY TASK-ASST.

Sayeed Anwar Shaikh
Computer Department
M.H Saboo Siddik College of Engineering
Mumbai, India

Aarish Fakih
Computer Department
M.H Saboo Siddik College of Engineering
Mumbai, India

Amaan Syed
Computer Department
M.H Saboo Siddik College of Engineering
Mumbai, India

Anand Bali
Computer Department
M.H Saboo Siddik College of Engineering
Mumbai, India

Osama Ansari
The COVID-19 pandemic has brought many changes in our day-to-day lifestyle. One of the major changes is wearing a Facemask and requirement of normal body temperature. Thermometer and Facemask detector are required for checking the temperature and to detect whether the person is wearing a mask or not. Using normal thermometers will be quite risky as the necessary distance cannot be maintained. IR thermometer will be helpful in this case as IR thermometer follows non-contact method by which there is no risk of passing the infection from one person to another. IR based thermometer will use Mlx90614 contactless sensor which will be used to check the temperature. As it is a contactless thermometer, it can be fixed on wall or any entry point. Alert or a beep sound will be produced if temperature reaches a certain critical point. Facemask Detectors are necessary in crowded places like malls, hospitals etc. as it would be difficult for a human being to monitor a large crowd at the same time. Facemask detector can detect the facial area of a large crowd within minutes and the person monitoring the system will get to know who is not wearing a mask by just sitting and monitoring from security camera. In Facemask detection, TensorFlow technology will be used to detect the mask as this technology uses dynamic face recognition and give complete analysis of face structure.

Keywords—COVID-19, contactless, TensorFlow, Facemask, IR Thermometer, Coronavirus, OpenCV, Machine Learning.

28. CAESAR CIPHER FOR EFFICIENT DATA PRIVACY AND SECURITY

Dr. P.N. Renjith
Computer Science and Engineering
Hindustan Institute of Technology and Science
Chennai, India

Velpucharla Lahari
Computer Science and Engineering
Hindustan Institute of Technology and Science
Chennai, India

Dinesh Udayan
Computer Science and Engineering
Hindustan Institute of Technology and Science
Chennai, India

Tanuja Sutradhar
Computer Science and Engineering
Hindustan Institute of Technology and Science
Chennai, India

Caesar cipher is one of the ancient, simplest and widely known encryption technique that converts plain text message into cipher text protecting it from intruders. However, there is a need in improvising such techniques. This paper contributes a modified and expanded version for Caesar cipher by changing the key dynamically. To increase the toughness of this encryption technique, the proposed modified algorithm uses multi-layered encryption algorithm. In this algorithm timestamp of the fetch request will be taken as the key of the inner most layer. Geo-location of the sender will be considered as the middle layer. Through cryptographic network communication IP address of the sender for verification purposes will be considered for the outermost layer. After the encryption, data along with the key is sent by following the TCP Protocol approach to carry forward the decryption process. And now the encryption script becomes impossible to decode. A complex key generation technique that generates key dynamically is used to enhance security. This paper aims to provide the enhanced version of Caesar cipher technique that can overcome the limitations faced by the classical Caesar cipher.
Keywords—Caesar Cipher, Encryption, Cryptography

29. SPEAKING SYSTEM FOR MUTE PEOPLE USING HAND GESTURES

Shyam, Surya M, Vigneshwara R
U.G student, Department of ECE
Sri Krishna college of engineering and technology
Coimbatore, India

Dinesh Kumar J R,
Assistant Professor,
Department of ECE
Sri Krishna college of Engineering and Technology
Coimbatore, India

Priyadharsini K
Assistant Professor, Department of ECE
Sri Krishna college of Engineering and Technology
Coimbatore, India

Karthika S,
Associate Professor, Department of ECE
Sri Krishna college of Engineering and Technology
Coimbatore, India

The important means of communication for mute people is by using sign language and facial expressions. The sign language used by the mute people are not understood by the public, and hence is a barrier in communication between the mute and the normal person. With the help of the developed electronic device, we can help narrow this barrier and offer a way for mute people to communicate. The electronic device which is in the form of a glove, recognizes the hand gestures made by the mute people and converts it into speech. This model consists of PIC-16F877A microcontroller for processing the data from the flex sensors and accelerometer sensor. The flex sensor measures the change in terminal resistance and the accelerometer determines the glove’s position in space and monitors the glove’s movement. The microcontroller receives the sensor values, compares them to the pre-programmed values, and interprets the registered message. The device uses MPLAB IDE for microcontroller programming.

30. PEER TO PEER ENCRYPTION FOR SECURE FILE TRANSFER

Ashwin C, Sarath M, Sriraman.M, Dr.R.Mohandas,
Dept. of Computer Science and Engineering,
Hindustan Institute of Technology and Science,
Chennai, Tamil Nadu

In this project, we're conducting IT testing research while also considering the security of cloud computing. We used an IT analysis software on a machine to computer system to ensure the optimal level of protection during this investigation. The definition of a checklist for cloud computing applications and their life cycle is built in an IT research program. These checklists are based on cloud computing supply and service models. We're most concerned with incorporating the effect of cloud computing on major business program like Customer Relationship Management and achieving this goal with this project. Through the design and implementation of an IT research methodology, the necessary degree of protection can be achieved. We claim IT testing ensures the appropriate level of security, regulations, and compliance with business applications such as Customer Relationship Management as a result of successful IT research over the computer cloud system.

Index terms:- Bussines oriented ,secure Transfer, cloud storage
31. A REVIEW ON AIR QUALITY PARAMETERS FOR AMBIENT POLLUTION MANAGEMENT FRAMEWORK

S.Sivakumar
Department of Computer Science and Engineering
Annamalai University
Annamalai Nagar, India

Dr.V.Ramya
Department of Computer Science and Engineering
Annamalai University
Annamalai Nagar, India

Pollution is the addition of perilous substances into the environment that creates harmful atmosphere to human and other living creatures. Pollutants are components of solids, liquids or gases specifically emitted beyond the normal threshold level of concentrations that affects the atmosphere’s quality to a considerable extent. PM is one of the common air pollutants which is a combination of suspended solid and liquid particles in the air. PM2.5 pollution is becoming a severe problem due to automation of industries and more energy consumption. Because of this, the people will be affected by breathing issues leading to in heating, ventilation, and air conditioning (HVAC) due to the requirement of air cleansing. This paper assesses and evaluates the foundations of indoor and outdoor PM2.5 and the effect of PM2.5 pollution on surrounding prominence, occupational health and residents conduct. PM2.5 mainly creates heart disease, stroke, chronic obstructive pulmonary disease, lung cancer and other main health hazards. Inhaling SO2 induces irritation to the nose, eyes, throat and lungs. When someone inhales NO2, the gas rapidly dissolves into the blood stream and hits the brain within seconds. Low amounts of O3 can cause chest pain, coughing and shortness of breath and throat infection. Further studies will forward us to a broad movement for the impact of PM2.5 towards health issues.

Keywords—Air Pollution; Indoor; Outdoor; PM2.5; PM10; Sulfur dioxide; Nitrogen oxides;

32. FACE MASK DETECTION USING SINGLE SHOT MULTIBOX DETECTOR AND MOBILNET

1st Shivanandham J.S
Dept. Of Computer Science and Engineering
Hindustan Institute of Technology and Science
Chennai, India

3rd Ranjana
Dept. Of Computer Science and Engineering
Hindustan Institute of Technology and Science
Chennai, India

2nd Manoj B
Dept. Of Computer Science and Engineering
Hindustan Institute of Technology and Science
Chennai, India

4th Ramesh K
Dept. Of Computer Science and Engineering
Hindustan Institute of Technology and Science
Chennai, India

Face mask detection is a tool that is developed using ML which can classify between people that are wearing face masks and those who are not with the feed given to the model. The idea is to provide a solution for a worldwide pandemic safety measure absence. We are trying to provide a simple but effective solution that can ensure a safety measure to the public at any common place. This proposed
Detector is a one-stage detector focused on detecting face masks alone. The use of Tensorflow and Computer vision libraries were inevitable in this project. Numpy was used for the image processing. MAFA dataset is used to train the model in order to get accurate results. Single shot Multibox detector is used to enable multiple detection. The base model is MobileNetV2. Basically, a live video feed is processed to find a face after which that face is cut out to be processed and later checked for the existence of a face mask. If positive a green box appears around that face else a red box appears and this is used to notify the officials about the presence of masks or lack thereof. This is a simple but effective solution that can be integrated with several other technologies and provides excellent accuracy percentage of outputs in the quickest possible time.

33. FRUIT STAGE CLASSIFICATION USING MACHINE LEARNING

Dr. A. Antonidoss  
Department Of Computer Science & Engineering  
Hindustan Institute of Technology & Science  
Chennai, India

S. Lakshmoji Computer Science & Engineering  
Hindustan Institute of Technology & Science  
Chennai, India

S. Ramoji  
Computer Science & Engineering  
Hindustan Institute of Technology & Science  
Chennai, India

K. Sumith  
Computer Science & Engineering  
Hindustan Institute of Technology & Science  
Chennai, India

Fruits are the major source of food for humans. According to the scientific research done it is found out that quality seeds are needed which in turn leads to the requirement of quality fruits for better yield of new crops. So, it is required for farmers to identify the correct stage of fruit. Farmers spend their lives solely to utilize their time to discover this extraordinary aspect of farming. Instead of farmers using their time in this process they can use their effort in the fields where their work cannot be replaced by any of the technological advancements and this process can be automated by the latest technologies. With the advancement of technology, the process of identifying the stages of fruits can be done in short span of time by using techniques like object detection which has gained a huge popularity in recent times. It mainly involves two phases. The first phase is to identify the type of the given fruit and the second phase is to classify the stage of the fruit which tells how likely the given fruit is suitable for planting. The first phase can be obtained by using Faster R-CNN of YOLO object detection model which is faster than R-CNN. The second phase can be obtained by using SVM model.

Keywords - Fast R-CNN, Supervised Machine Learning, SVM.

34. PREDICTING THE STAGE OF HYPERTENSION USING DATA MINING DECISION TREE CLASSIFIERS

G. Rasitha Banu1 N. Sasikala2, M. Ravithammal3 and Thgani Babiker4  
1,2. Assistant Professor, Department of Health Informatics, Faculty of Public Health and Tropical Medicine, Jazan University, Kingdom of Saudi Arabia.  
3. Assistant Professor, Department of Mathematics, The Quaide Milleth College for Men, Chennai – 600100, Tamil Nadu, India.
Hypertension disease is one of the common chronic diseases to be found in human beings. It is always better to detect the disease at an earlier stage of life to prevent further harmful effects and to devise proper treatment. In this study, the hypertension is taken into consideration for early prediction and diagnosis of the disease by using the data mining technique to analyze the data. In healthcare organizations the volume of data is more. To get knowledge from those data we need an efficient technique. Data mining is used for the purpose of discovering knowledge from vast amount of database. To classify the stage of hypertension, classification technique which is one of the data mining technique is used. The data is collected from 149 household of students from Public Health College in Jazan University. The research work is done with WEKA open source software under Windows7 environment. An experimental study is carried out using data mining techniques such as J48 and Random Forest tree. The data records are classified as five categories such as normal, elevated, Hypertensive crisis, stage 1 and stage 2. As a result, the performance is evaluated for both classification techniques and their accuracy compared through confusion matrix. It has been concluded that J48 gives better accuracy than the Random Forest tree technique.

Keywords: Hypertension, Data Mining, Classification, Decision Tree.

35. LANE LINE DETECTION IN AUTONOMOUS CARS

Er. Farhana Siddiqui  
Assistant Proofessor: Department of Computer Engineering Mohammed Haji Saboo Siddik College of Engineering Mumbai,India  
Anas Farooqui  
Computer Science  
Mohammed Haji Saboo Siddik College of Engineering Mumbai,India  
Abdullah Bharde  
Computer Science  
Mohammed Haji Saboo Siddik College of Engineering Mumbai,India  
Ibrahim Ansari  
Computer Science  
Mohammed Haji Saboo Siddik College of Engineering Mumbai,India  
Narjis Fatema Suterwala  
Computer Science  
Mohammed Haji Saboo Siddik College of Engineering Mumbai,India

This paper deals with an efficient method of lane line detection in self driving cars. In order to effectively realize the feature extraction of road image, reduce the complexity of calculation and the complexity of algorithm and improve the detection accuracy of lane mark, combined with the characteristics of lane line, in this paper, an effective image preprocessing scheme was selected and designed, and a detection method based on segmented ROI model which included close region, sub-close region and respective region was proposed.

Keywords—Region of interest, Edge detection, Hough transform

36. UNDERWATER IMAGE RESTORATION WITH AN ESTIMATION OF BACKGROUND LIGHT AND EQUALIZATION TECHNIQUE
Underwater images suffer from color cast and low visibility caused by the medium light scattering and absorption, which will decrease the valuable information of the image. In this project, we propose a novel method which includes five stages namely image pre-processing, background estimation, global equalization of histogram, local equalization of histogram and multi-scale fusion to improve the underwater image quality. Background light estimation is used to determine the color tone of underwater images. Global equalization of histogram is employed to correct the color of input image according to the characteristics of each channel. Local equalization is based on the average of mean and peak values is used to improve color of the image based on the characteristics of each image channel. Dual-image multi-scale fusion is used to integrate the contrast and exposure weight maps of the color corrected and contrast enhanced images. Various types of degraded underwater images are experimented with the proposed and state-of-art techniques, which shows that the proposed method gives better output results in both qualitative and quantitative analysis. Thus, the proposed method can be implemented for the restoration of the underwater images which would be helpful to determine the soil moisture and ocean salinity mapping. Based on these details, the density of seawater can be determined, because it is a vital factor to drive the currents in oceans.

37. AN EFFICIENT WAY OF PREDICTING UNHEALTHINESS OF FROND USING DEEP LEARNING ALGORITHM

Dr. SV. Shri Bharathi  
Computer Science and Engineering  
Hindustan Institute of Technology and Science.  
Chennai, India

Suresh Reddy Bhumireddy  
Computer Science and Engineering  
Hindustan Institute of Technology and Science.  
Chennai, India

Sarada Nidamanuri  
Computer Science and Engineering  
Hindustan Institute of Technology and Science.  
Chennai, India

Dr. Angelina Geetha  
Computer Science and Engineering  
Hindustan Institute of Technology and Science.  
Chennai, India

Anil Kumar Rodda  
Computer Science and Engineering  
Hindustan Institute of Technology and Science.  
Chennai, India

The Farming system can improve more by using innovative technologies that will help us to improve the quality and quantity of agricultural production. Now a day’s Plant leaf diseases are the major drawback for the crop yields and it is reducing the production and its quality because of that we are facing major threats on food security. The proposed system “Predicting Unhealthiness of Frond Using Deep Learning Algorithm” will be very helpful to reduce the diseases on frond to get more effective crop by using this technique. So this system will be helpful to the farmers for this we are using deep learning approach with the combination of algorithms are AlexNet and LeNet. A different way of approaching neuron-wise and layer-wise visualization methods were applied by using a deep learning algorithm, trained the model with a publicly available plant diseased dataset given for images. So, by
observing that We conclude that neural networks can capture the colors and textures of leaves to respective diseases upon that farmers will take the decisions.

Keywords— Disease Detection, deep learning, AlexNet, LeNet, Tensor Flow

38. SMART METHOD FOR HUMAN ACTION RECOGNITION USING DEEP LEARNING

(Ms. Linda Joseph assistant professor in Computer science engineering, Hindustan institute of technology and science.)

Nithin Kumar Reddy Abbavaram
department of computer science engineering
Hindustan institute of technology and science
Chennai 603103, India

Hari Krishna Enjam
department of computer science engineering
Hindustan institute of technology and science
Chennai 603103, India

Thirumala Teja Motupalli
department of computer science engineering
Hindustan institute of technology and science
Chennai 603103, India

Dementia is one among the foremost common diseases among the senior in today's world. Dementia may be a type of dementedness that primarily affects the senior. It's triggered by the brain's nerve cells failing or dying. the foremost common cause is presenile dementia. According to some figures, fierce of individuals aged eighty five and up could have presenile dementia. dementedness isn't a standard a part of ageing, despite the very fact that age is that the greatest risk issue. Some folks live well into their nineties and on the far side, with no symptoms of dementedness. a big issue has been the watching and treatment of those people. This project focuses on HAR as a result of it's necessary to trace the activities of the senior and other people in coma in unattended situations. This project demonstrates a sensible act recognition approach that uses skeletal joint movements to mechanically acknowledge human actions and mix competencies. this can be a inexpensive, high-accuracy system. once folks area unit alone, AN freelance smartphone application is being created to trace their condition and surroundings. throughout AN irregular state, a mobile warning is shipped.

39. ASL (AUDIO AND SIGN LANGUAGE) CONVERTER

Vrithik Bora
Final Year BTech
Computer Science and Engineering
Hindustan Institute of Technology and Science
Chennai, India

Ujjwal Kumar
Final Year BTech
Computer Science and Engineering
Hindustan Institute of Technology and Science
Chennai, India

Sumit Kumar
Final Year BTech
Computer Science and Engineering
Millions of people suffering from hearing impairment have the difficulty in communicating with others. There are different sign language standards based on where a person lives. Not everyone knows how to communicate in sign language making the communication between people hard. The focus of the ASL (Audio and sign language) converter is to build a bridge of communication between the two people. The system takes sign language as input and display the audio message as output with the use of machine learning. The application is made using React JS.

Keywords: Machine Learning, Communicate, React JS.

40. EEG-BASED BRAIN-CONTROLLED FOR AUTOMATIC OPERATIONS ON WHEEL CHAIR

1P. Ranjana, 2N. Prasanna Kumar, 3A. Manjunadh, 4R. Manoj
1,2,3,4Department of Computer Science and Engineering,
Hindustan Institute of Technology and Science, Chennai, India

Paralysis is the point at which you can't move certain pieces of your body after something turns out badly with their connection to your brain. It comes in various structures and can be brief or lasting or even go back and forth. However, regardless of whether an individual's paralysis is not treatable, their doctors and physiotherapist can suggest assistive technologies, remedial mediations, or different systems to help improve personal satisfaction. Therefore, we are proposing a novel IoT based Brain Controlled Mobile Robots which is capable of improving the patient satisfaction by automatic operations on wheelchairs based on EEG signals. This project is implemented using Raspberry Pi and Python as language.

41. FUTURE-TREND-INDICATORS-FOR-TRADING-STOCKS USING MACHINE LEARNING

Prof. Waheeda Dhokley
Department of Computer Engineering,
M. H. Saboo Siddik College of Engineering,
Mumbai, India

Ninad Sawant
Department of Computer Engineering,
M. H. Saboo Siddik College of Engineering,
Mumbai, India

Om Chavan
Department of Computer Engineering,
M. H. Saboo Siddik College of Engineering,
Mumbai, India

Nabeel Wagle
Department of Computer Engineering,
Stock price prediction is one among the complex machine learning problems. It depends on a large number of factors which contribute to changes in the supply and demand. This paper presents the technical analysis of the various strategies proposed in the past, for predicting the price of a stock, and evaluation of a novel approach for the same. Stock prices are represented as time series data and neural networks are trained to learn the patterns from trends. Along with the numerical analysis of the stock trend. In this work, we propose an approach of hybrid modeling for stock price prediction building different machine learning and models. For the purpose of our study, we have used ‘AAPL’ stock values during the period March 15, 2016 till March 12, 2021. Using these regression models, we predicted the close values of AAPLE for 441 datasets. We exploit the power of LSTM regression models in forecasting the future AAPLE close values. Extensive results are presented on various metrics for all the regression models. The results clearly indicate that the LSTM-based univariate model that uses one-week prior data as input for predicting the next week close value of the AAPLE time series is the most accurate model.

42. A NOVEL ENERGY DETECTION SCHEME FOR SPECTRUM SENSING IN MULTIPLE NETWORK SCENARIO

Dr. Sitadevi Bharatula
ECE Dept. Aarupadai Veedu Institute of Technology
Vinayaka Mission Research Foundation
Chennai, India

Dr. BS Murthy
Director
Department of Telecommunications
Ministry of Communications, Govt. of India

Cognitive Radio Networks (CRN) use spectrum sensing techniques to provide connectivity to secondary users (SU) without causing harmful interference to the primary user (PU). The process of spectrum sensing and spectrum hole identification by secondary users (SU) may get affected by low Signal-to-Noise Ratio (SNR) conditions as SUs generally operate at low signal power conditions and spectrum sensing may get affected by shadowing or fading. Channel state estimation under cooperative spectrum sensing method will provide a solution to tackle this issue wherein the primary channel state is estimated, for taking a decision on spectrum sensing. Spectrum sensing methods using energy detection (ED) schemes reduce the computations, but these schemes are not suitable in low signal-to-noise (SNR) conditions. Multistage and adaptive threshold techniques improve the performance of the cognitive networks, but it increases the complexity of the system. In addition, most of the existing spectrum sensing (SS) methods assume narrowband communication scenarios and are not useful in a multiple network environment.
Hence, in this scenario, it is necessary to develop an effective sensing technique for wideband sensing scenarios and to work effectively for multiple networks, which will be vital for future cognitive radio (CR) services. In order to implement the spectrum sensing effectively in heterogeneous wireless networks, a novel energy detection scheme is proposed in this work for accurate spectrum sensing and efficient dynamic spectrum access to the secondary users. To maximize the access for secondary user, the availability of inactive primary user is determined based on spectrum sensing and channel state estimation. The combination of sensing decision and channel state estimation has been used for better spectrum sensing. In this method, the spectrum sensing data is processed with the help of a specially designed channel filter using universal band pass sampling algorithm. Some important features of the spectrum sensing technique proposed in this research work are that it can sense the spectrum in
heterogeneous network scenario and under low SNR conditions. The results obtained with this technique are compared with the existing adaptive double threshold techniques which showed that the proposed method is much better than the existing spectrum sensing techniques in terms of probability of false alarm (Pfa) and probability of detection (Pd) for various SNR values.

Keywords— adaptive threshold, band pass sampling, channel state estimation, energy detection, primary user, secondary user, spectrum sensing.

43. SPAM EMAIL CLASSIFICATION USING NLP

Er. Farhana Siddiqui  
Assistant Professor: Dept. Of Comp. Engg. M. H. Saboo Siddik College of Engineering

Khan Suhail Nisar  
Dept. Of Comp. Engg.  
M. H. Saboo Siddik College of Engineering  
Mumbai, India.

Talha Atique Ansari  
Dept. Of Comp. Engg.  
M. H. Saboo Siddik College of Engineering  
Mumbai, India.

Kazi Zaki Haseeb  
Dept. Of Comp. Engg.  
M. H. Saboo Siddik College of Engineering  
Mumbai, India.

As title of the project suggests spam email Classification using NLP (i.e. Natural Language Processing) it is one of the major issue faced by every working professionals, organizations as well common to every people using electronic mail. As we receive bulging amount of spam mails daily it gets really hard for us to differentiate them, as well it is time consuming. In this project we will classify mail as spam and ham(i.e. not spam) by supervised training of the model using Naive Baye’s classifier method. Naive Baye’s classification is based on Baye’s Theorem.

44. CREDIT CARD FRAUD DETECTION USING PREDICTIVE MODELLING

Sathwik Ram Y  
Department of Information Technology Hindustan Institute of Technology & Science  
Chennai, India

Dr. Kavitha Esther Rajakumari  
Department of Information Technology Hindustan Institute of Technology & Science  
Chennai, India

K Taraka Sai vikas  
Department of Information Technology Hindustan Institute of Technology & Science  
Chennai, India
False credit card exchanges can produce a huge number of rupees in misfortunes consistently. A powerful mispresentation location calculation framework is the way to lessening these misfortunes and extortion. Numerous calculations depend on AI innovation to help misrepresentation examiners. Because of lopsided appropriation of information, lopsided dispersion of homerooms, and the accessibility of certain exchanges that misrepresentation examiners have seen, the algorithmic framework used to identify extortion is testing. Simultaneously, it is hard to get public data about private issue, so the inquiry regarding the best arrangement has not been replied. In this article, we plan to give a few answers by zeroing in on some significant inquiries, for example, I) why and how to do it in an example of class imbalance (ie extortion is a little piece of the exchange); ii) climate and Expenditure patterns), iii) how to assess the adequacy of the recognition, iv) how to utilize look gave by agents misrepresentation alerts. Here, we create and assess a misrepresentation location framework that can meet genuine working conditions and can incorporate the reactions of specialists to produce exact alerts/results. In this article, we utilized five AI models and thought about their exactness, TPR, FPR, G-implies, review, accuracy, particularity and F1-Score. The whole AI calculation utilizes a similar information to test true Visa exchanges in character extortion, non-misrepresentation exchanges. The principle motivation behind this article is to utilize a data set based understanding strategy.

IndexLTerms — credit card, fraud .detection, online .shopping, ,e-commerce, machine learning, dataset.

45. Design of Angle based 27-level Trinary Ladder Inverter using Cross Compiler

*1Dr.Joseph Anthony Prathap, 2Priyanka Bandaru, 3Vaishnavi Darshanam, 4B.Narendar
*1Associate Professor, 2,3,4UG Scholar, Vardhaman College of Engineering, Hyderabad,

This paper presents the design of the Multi-Level Inverter circuit based on the switched ladder topology using the angle events for the level changes. The change of events for the inverter is formulated using the Half Height Algorithm. The VHDL code is utilized for the generation of the angles as digital equivalence with the resolution of 27 bits. In ladder topology, there are several types of inverter namely Binary Ladder Inverter, Ye Progression, Luo Progression. Among all these topologies, the Trinary Ladder topology is advantageous for the number of levels attainment with the less number of switches. Also, the carrier-based modulation is erroneous with the High THD% and low Voltage Parameter values. The use of the non-carrier half-height method manipulates the accurate angle to measure acceptable THD %. The proposed Trinary Switched Ladder Inverter is cross-compiled with Xilinx Vivado and Matlab Simulink Took to evaluate the parameters such as THD%, VRMS, VPEAK, for the 27-level. The parametric analysis exhibits improvement in the proposed Ladder topology with cost, size, and performance when synthesized using the Xilinx Vivado tool.

Keywords:- Tinary Ladder Inverter, Angle method, HDL coding, Cross-compiling

46. PREDICTION OF HEART DISEASE USING MACHINE LEARNING ALGORITHMS

S. RAVI, DR.M. SAMBATH J. THANGAKUMAR, DANAM KUMAR, GORANTLA NAVEEN, MAKKA BRAMIAH
Department of Computer Science and Engineering Hindustan Institute of Technology and Science, Rajiv Gandhi Salai, Padur, Chennai, Tamil Nadu, India.

As big data becomes more prevalent in the healthcare and medical sectors, accurate medical data collection benefits early diagnosis of heart disease, hospital treatment, and government resources.
However, where medical data quality is lacking, understanding accuracy suffers. Consequently, some field diseases have unique features in different regions, which can make illness more difficult. It is now more hard to predict outbreaks. We automate machine learning algorithms for efficient epidemic detection in bacterial infection population in this paper. We put the modified forecasts to the test using securely and efficiently datasets. areas of the region To improve the situation of lost data, we use a predictive modeling approach to restore inaccurate value. Focused upon its patient's signs, a heart attack is suspected. Models were built using machine learning techniques. As a consequence, the accuracy is pinpoint accurate. The Flask web interface is used to build the Application. In this research, we shall conduct experiments using machine learning methods.

47. FUZZY AND MACHINE LEARNING BASED ALGORITHM FOR ALZHEIMER’S DISEASE PREDICTION

Pulla Supritha  
Final year B.Tech, CSE  
Hindustan Institute of Technology and Science  
Chennai, India

Padmaveni Krishnan  
Asso. Prof, CSE  
Hindustan Institute of Technology and Science  
Chennai, India

Polimera Bhavani  
Final year B.Tech, CSE  
Hindustan Institute of Technology and Science  
Chennai, India

M. Sambath  
Asst. Prof, CSE  
Hindustan Institute of Technology and Science  
Chennai, India

N D Asritha  
Final year B.Tech, CSE  
Hindustan Institute of Technology and Science  
Chennai, India

Alzheimer’s disease is one in all the foremost common neurodegenerative diseases. Though symptoms could also be dangerous initially, they’ll deteriorate over time. Alzheimer’s may be a common style of dementia. The malady is also caused due to Alzheimer and there is no cure for the malady. A diagnosing of the malady is usually done later. Thus if the malady is foreseen before, the progression or symptoms of the malady could decrease. The proposed algorithm shows Alzheimer’s prognosticative measures using Fuzzy and machine learning algorithms.

Keywords— Alzheimer's disease, mild mental retardation, machine learning, mental limitation

48. CLASSIFICATION RULE DIAGRAM TO DIAGNOSIS THE TUBERCULOSIS BASED ON SYMPTOMS

T. Baskar and M. Kannan  
1Ph.D Research Scholar, Dept of CSA, SCSVMV, Kanchipuram, India.  
2Dept of CSA, SCSVMV, Kanchipuram, India.

Data mining is a vast area in research and applications where it is applicable for many real-time problems hence it proves to be beneficial for large data handling. Especially when it comes to medical
Proceedings of the 11th International Conference on Science and Innovative Engineering
02nd May 2021, Chennai, India

Data mining, using data mining algorithms always proves to be exemplary where it helps to quickly diagnose diseases using available data based on classification algorithms. For example, diagnosing tuberculosis can be done using knowledge discovery patterns on uncovering various symptoms and associated patterns of behavior which is cost-efficient instead of diagnosing using various medical tests. In this paper we are employing a classification diagram which is a key element of a much more elaborative process called Knowledge Discovery, to provide some indicators that are mainly responsible for the occurrence of special disease – tuberculosis and symptoms that are highly correlated with the positive examination test based on various rule-based conditions. Classification rules can be used to infer the defining characteristics based on information relevance of different test components and hence discover hidden knowledge, unexpected patterns, and new rules from the database by using the Classification Rule Diagram to diagnose Tuberculosis.

Keywords:
Data mining, Classification Rule Diagram, Knowledge Discovery, Medical Diagnosis.

49. FIRE EXTINGUISHING TECHNIQUE USING COURSE CALCULATION & PREDICTION ALGORITHM

Joel J Varghese
Final Year BTech
Computer Science and Engineering
Hindustan Institute of Technology and Science Chennai, India

Akhil P S
Final Year BTech
Computer Science and Engineering
Hindustan Institute of Technology and Science Chennai, India

Ashin B
Final Year BTech
Computer Science and Engineering
Hindustan Institute of Technology and Science Chennai, India

Dr. R KRISHANAVENI
Asst. Professor
Department of Computer Science and Engineering
Hindustan Institute of Technology and Science
Chennai, India

This project is to perform the fire extinguishing process completely autonomous with the help of a drone and the trajectory method involved for the use of the water cannon. The main purpose is to reduce the human effort which are needed otherwise for a regular fire extinguishing process. This project consists of a drone that can aerially take the image of the desired incident from which the coordinates of it are sent into the fire engine for the extinguishing process. After gaining the necessary coordinates for the points of extinguish, the trajectory method is used for extinguishing the area of the fire with the suitable formula applied. The water cannon mounted above the fire-fighting vehicle does the preferred task. Here the distance between the drone and the fire-fighting vehicle and distance between coordinates play a major role in the trajectory of the water out of the cannon mounted above the fire-fighting vehicle.

Keywords: IoT, Trajectory, Autonomous, Contour detection, Gradient based edge detection

50. DESIGN AND DEVELOPMENT OF CPAP (CONTINUOUS POSITIVE AIRWAY PRESSURE) USING SMART-PHONE

MRS.UMA.S1a,SHARIKA.S1b,LIKITHA.S1c,TIMPLESONA.R1d,VARSHINI.M.S.K1e
1B.Tech.IT, Panimalar Engineering College

Continuous Positive Airway Pressure (CPAP) is a mode of non-invasive mechanical ventilation commonly used in neonatology. The incorporation of new therapeutic and technological advances may impact the survival of very low birth weight preterm infants. However, one of the difficulties faced is the high cost of this device and its numerous add-on functions, such as Apnea Hypopnea Index (AHI), flow limitation, among others. Thus, in this study, we aim to address the design and construction of a CPAP device as proof of concept to be used in a Neonatal Intensive Care Unit (NICU). Methods: In order to design the experimental CPAP device with sensory instrumentation for providing data to a micro-controlled system, electro-pneumatic circuits and signal conditioning boards of sensors have been fitted to achieve optimized CPAP function with low energy consumption.

Keywords: Continuous Positive Airway Pressure (CPAP), Neonatal, Respiratory Distress Syndrome (RDS), premature baby, Transpiration medical device.

51. SMART AMBULANCE

Dr. R. Sumathi [1], RM. Gokul[2],, M. Gokulakrishnan[3],, K. Ganesh Babu[4],, S. Pavithra[5],
Department of Electrical and Electronics Engineering, Sri Krishna college of Engineering and Technology Coimbatore, India

Street gridlock turns into a significant issue for exceptionally packed metropolitan urban areas. India is the second most populated country on the planet and is a quickly developing economy. It is confronting awful street blockage in the urban communities. As per Times of India around 30% of passings are caused because of postponed emergency vehicle to reach at clinic. In proposed framework we are attempting to lessen the postponement for the rescue vehicle. To smoothen the emergency vehicle development we think of "Keen Ambulance". We are attempting to give the green signs to the path where the emergency vehicle needs to go through by physically turning switch on specific path. We will utilize the innovation loved RF Module. This framework was planned so that it ought to be initiated when it got signal from rescue vehicle dependent on radio recurrence (RF) transmission and we utilized Arduino to change the succession back to the typical arrangement before the crisis mode was enacted. In second stage, we are building up a site for doing enrollment about clinical history, everything being equal. This information will assist with saving the time in clinic to get prepared for treatment. This information can be recovered by utilizing exceptional id and unique finger impression confirmation. This produced information will be shipped off the specific clinic before the coming to of emergency vehicle over yonder. As this framework is completely computerized, it perceives the emergency vehicle and control traffic lights. This framework controls traffic signal and saves the time in crisis period. Accordingly, it goes about as a lifeline project.

Keywords: RF Module, Traffic monitoring, Fingerprint authentication,

52. AN UNIQUE METHODOLOGY FOR CREDIT CARD FRAUD DETECTION BASED ON CONVOLUTIONAL NEURAL NETWORK

1 S.Ravi, 2 J.Thanga kumar, 3 Dr. Linda joseph, 4 Sumanth Raju Kunjeti, 5 Nandu Vardhan Saniboina,
6Sandeel Reddy Endela

{1,2,3} Assistant Professor, {4,5,6} UG Scholar
Department of Computer Science and Engineering,
Hindustan Institute of Technology and Science, Chennai

Internet based business, e-Services and numerous other web-based application have expanded the online payment modes, expanding the danger for online frauds. Expansion in fraud rates, analysts began utilizing distinctive machine learning strategies to identify and dissecet frauds in online exchanges. The principle point of the paper is to plan and build up a novel fraud identification strategy for Streaming Transaction Data, with a target, to dissect the previous exchange subtleties of
the clients and concentrate the personal conduct standards. This paper proposes a canny model for detecting fraud in credit card exchange datasets that are unusually imbalanced and enigmatic. The class irregularity issue is dealt with by finding lawful just as fraud exchange designs for every client by utilizing continuous itemset mining.

Keywords— Credit Card Fraud Detection, Neural Network, CNN, Artificial Intelligence

53. STREET LIGHT MONITORING AND FAULT ALERT SYSTEM

N.Virat reddy, S.Afroz, G.Lohith , Ms.Navya
Department of computer Science and Engineering
Hindustan Institute of Technology and Science

The aim of the project is to provide street light monitoring and fault alert system. A lighting framework that centers around the force and programmed activity of minimal effort streets and fast reaction to street light mistake messages. Moreover, blunders brought about by physical work can likewise be wiped out. Turn on/off streetlamps through the Internet of Things (IoT). The streetlamp framework checks the on/off status of the streetlamp. The LDR sensor can decide if the climate is dim or dim. In the event that the climate is gentle, the framework will close down. At the point when the climate is faint, the lighting framework will be on. Subsequent to enlightening the status marker, utilize the LDR sensor to check the situation with the pointer or pointer. At the point when the light isn't on, the sensor will send a worth to the streetlamp framework. The road lighting framework will create a message and send the instant message to the ward and the phone quantities of the ward individuals through GSM. Simultaneously, the sensor esteem is put away on the cloud worker. We can get to the lighting framework information in the cloud whenever and anyplace.

Keywords:iot,arduino nano,smart street

54. SMART HEALTH MONITORING SYSTEM FOR THE ELDERLY

P.Lakshmi Prabha
Assistant Professor
Biomedical Dept, SRMIST
Chennai, India

Adwaith Sreedher
Student, Biomedical Dept
SRMIST
Chennai, India

Haritha Nair
Student, Biomedical Dept
SRMIST
Chennai, India

Nehaa Pravin
Student, Biomedical Dept
SRMIST
Chennai, India

Smart Health Monitoring Devices help people to manage and monitor their health better and early by tracking their self-health and also providing clinicians with data for early diagnosis and better guidance of treatment for the patients. Our work aims at developing a prototype for health monitoring of the elderly by using sensors and sending out alert messages to the doctors or family members in
case the vitals are abnormal. This smart health monitoring device consists of sensors like pulse/heartbeat sensor, GSR for stress detection, Temperature, accelerometer sensor for fall detection and step counting and components like GPS Tracker, Arduino nano, nodeMCU, display. The data from the sensors goes to the Arduino. The Arduino then communicates these sensor values to the nodeMCU. The nodeMCU then transfers the data to the cloud where the sensor values can be stored. These values can also be visualized in the form of graphs with MATLAB on the cloud platform i.e., Thingspeak. The results given using this monitoring device have been accurate measurements of the vitals and have been successfully coded to give out alert messages during abnormal ranges of parameters (smart monitoring), and the graph of the vitals have been visualized on the Thingspeak platform. The drawback of our work is that due to the use of a number of components/modules the size of the device is bigger than a wearable one and needs to be accommodated into a smaller enclosure for the ease of the patients in order to monitor the health continuously by wearing the device at all times. Nonetheless, an improved version of this work could help the patients experience comfortable monitoring and management of their health at ease.

Keywords— Health Monitoring, sensors, smart monitoring

55. CFST COMPOSITE COLUMNS STUDY ON CONFINEMENT EFFECTS

Dr. Vinayagam Ponnusamy
Research Scholar,
Post-Doctoral Fellowship,
Civil Engineering Department,
Lincoln University College, Malaysia.

Dr. Janani Selvam
Supervisor
Lincoln University College, Malaysia.

Prof. Dr. Amiya Bhaumik,
Co-Supervisor
Lincoln University College,
Malaysia

This paper deals with the confinement effects of concrete filled steel tubular composite column subjected to different axial loading conditions. The columns were circular in cross-section with constant D/t and slenderness ratio is equal to 6. The experimental study includes for the confinement effect that the axial load applying on the steel only, on the concrete core only and both the concrete and steel. The bond between the steel and internal core concrete was critical in determining the formation of local buckling. Based on this study the column fails by elastic buckling. Keywords: Confinement effect, Concrete filled steel tubular, Composite column.

56. APPLICATION OF STOCHASTIC DIFFERENTIAL EQUATIONS IN RL CIRCUIT USING AUTOREGRESSIVE AND RANDOM RUNGE KUTTA FOURTH ORDER METHOD

D. Piridarshani1, M. Maheswari 2, Beena James3 and Daniya Nishi N4

1Department of Mathematics,
Hindustan Institute of Technology and Science, Chennai, India

2 Department of Mathematics,
Hindustan Institute of Technology and Science, Chennai, India.
In this paper, we determine the deterministic and stochastic values of RL circuit by adding the noise terms in the circuit. A discrete and continuous case numerical solutions are obtained from first order Autoregressive model and Random Runge Kutta fourth order method. By comparing the numerical solutions, we observed that discrete case Autoregressive model gives more efficient values than continuous Random Runge Kutta fourth order method.

Keywords: Stochastic Differential Equations, First order Autoregressive model, Random Runge Kutta fourth order, RL Circuit.

57. BLOOD CELL SEGMENTATION AND CLASSIFICATION BY MACHINE LEARNING

Md Haris Uddin Sharif
University of the Cumberlands
Williamsburg, Kentucky, USA
ORCID: https://orcid.org/0000-0002-1169-8438

Prof. Dr. K. Maroti Yamaguchi
Strayer University
Maryland, USA

Shaamim Udding Ahmed
Strayer University
Silver Spring, Maryland, USA

The immune system is the third defensive line of the human body which defends the body from viruses, bacteria and pathogens. This natural protection detects and kills defective cells like the tumor cells. The immune system contains immune organs, immune and immune cells. The essential constituent of immune cells is white blood cells (WBCs), and they are an essential part of our body immunity. The light disperses system theory is used by automatic machines to compute red blood cells (RBCs) and WBCs. WBCs can be classified into five distinct types: basophils, eosinophil, neutrophils, lymphocytes and monocytes. They are granular in the first three forms and non-granular in the second two. It was ineffective to differentiate these types through the use of the light dispersal process. In this paper we will provide data that will consist images and .xml file of each image then system will provide us the information of image. We will segment out the blood cells images based on .xml file information. Also, will extract the features of blood cells depending upon the nature of image. To extract the color features will use Grid Color Moment Algorithm, for texture features Local Binary Patterns Algorithm, for classification will use K Nearest Neighbors Algorithm. Finally, will calculate the accuracy from our given data.


58. ASSISTIVE MORSE CODE SYSTEM FOR BLIND INDIVIDUALS

P. Sai Deepak
Starting with statistics, according to WHO (World Health Organization) around 28.2% are suffering blindness of 7.8 billion peoples. Many standard types of equipment are introduced like a blind stick, object detection blind stick, etc. but which is not accurate enough to detect objects and have many limitations. These limitations drove towards creating a piece of standard equipment, which reduces the limitations and makes blind peoples walk more effective as normal humans. The aim of this paper is to how a blind person passes the obstacle objects with the help of modern technologies and reduce the limitations of previous technologies. Using Sensors and Arduino, which covers 360 degree helps to detect object coming from the left, right, front, bottom and backside. When an object sensed, the signal sent through vibrators and vibrators with different vibration patterns with Morse Code as reference.

Keywords – Embedded Systems, Ultrasonic Sensors, Vibration Motors, Morse Code, Arduino

59. DESIGN AND IMPLEMENTATION OF CONNECTED DATALAKE SYSTEM FOR RELIABLE DATA TRANSMISSION

Department of Information Technology, Sri Sairam Engineering College, chennai-44

Currently, the edge cloud for efficient management of IoT and various devices is increasing, so there is a growing need to safely and flexibly manage the stored data in the Edge Cloud. One of the most effective ways to efficiently manage the growing edge cloud is to store the data of each distributed edge cloud to the cloud. In this paper, we design and implement a connected Data Lake system based on distributed cloud storage that delivers data stored in multiple Edge Clouds securely to micro cloud storage. In addition, the system performs real-time error recovery such that the transferred data can be restored to the abnormal point when an abnormality occurs during transmission.

Keywords : Cloud, IOT, Data, Storage

60. DISEASE PREDICTION AND DOCTOR RECOMMENDATION SYSTEM USING MACHINE LEARNING APPROACHES

Anand Kumar
Student
Department of CSE
In our everyday life we go over numerous individuals who are experiencing some sort of Diseases. Prediction of disease is an integral part of treatment. In this project the disease is accurately predicted by looking at the symptoms of the patient where the patient can input his/her symptom and the system will predict the disease patient is suffering from. Classification Algorithms like the Naïve Bayes (NB), Random Forest, Logistic Regression and KNN have been broadly utilized to anticipate the Disease, where different accuracies were obtained. In corresponding to a particular Disease, for example, Heart Disease, Diabetes and so on is additionally anticipated by demonstrating “True” or “False” i.e. if an individual is having or not having that Disease. Prediction of such a system can have a very large potential in the medical treatment of the future. Once the Disease is predicted by the system, It then recommends which type of doctor to consult. In this paper, an audit of some new works identified with utilization of Machine Learning in expectation of disease is predicted. An interactive interface is built as front-end to facilitate interaction with the symptoms. The whole model is implemented using Django and is connected to the Django Server.

61. DECENTRALIZED BLOCKCHAIN BASED LAUNDRY APPLICATION

Dr. SV. Shri Bharathi
Assistant Professor (SG)
DEPT. OF CSE
Hindustan Institute of Technology and Science
Chennai, India

T.N.V.Ramanuja Gupta
Computer Science and Engineering
Hindustan Institute of Technology and Science
Chennai, India

M.N.V.Aditya
Computer Science and Engineering
Hindustan Institute of Technology and Science
Chennai, India

Dr. Angelina Geetha
Professor
Head of Dept. of CSE
Hindustan Institute of Technology and Science
Chennai, India

In today’s world mobile applications play a key role for delivering various kinds of services like apps for Food, Shopping, Banking, etc. They are the smarter way to get the requirements done easily. The proposed project is an application which is built on Android platform especially for laundry servicing companies and washer men to make it a one stop solution for all kinds of laundry activities. The application aims to provide a platform to connect laundry companies, unemployed washer men,
students, working people and people who stay away from their homes to get mutually benefitted from one another. The proposed applications is user friendly and lets the users search and place their orders securely with no loss of integrity.

Key words — Laundry application, android, block chain, QR-code.

62. FLOOD MONITORING AND ALERT SYSTEM USING GPS, GSM & IOT

Radhika A1, Keerthanen K2, Mahendran K3, Mahesh Kumar R4, Mano Sarath N5
(1 Associate Professor, Department of Electrical and Electronics Engineering, SKCET, Coimbatore) (2,3,4,5 Student, Department of Electrical and Electronics Engineering, SKCET, Coimbatore)

Flood occurs because of inappropriate water system strategy in a lodging region or the unexpected increment of water volume in a stream. Flood calamity regularly causes loss of property, harms and life. Since this calamity is viewed as perilous to human existence, an effective countermeasure or ready framework advise individuals in the beginning phase so security precautionary. This paper proposes engineering for an early notice floods system to alarm public against flood catastrophes. An low cost flood detection system is developed with linkages between four elements, which are precise information assortment to attempt hazard appraisals, improvement of danger observing administrations, correspondence on hazard related data and presence of local area.

Keywords: IoT, Wi-Fi, GSM, Flood Monitoring, GPS.

63. AN IMPROVEMENT BASED ON ULTRA CAPACITOR WITH DESIGN OF DVR FOR POWER QUALITY

Mr. K. Prashanth
Final year M.E student
Department of EEE
K.S.Rangasamy college of Technology
Tiruchengode, TamilNadu, India

In the current generation the usage of high voltage is moving towards the wastage of industrial applications. To protect the high power installation the device that has been used here is DVR. This is used to perform an operation of PV stowing and grid construction; therefore the remaining energy source can be deposited through a bridge. The DVR can be merged within the energy stowing and PI supervisors these can also be enhanced by Fuzzy logic procedure. This algorithm might be helpful in retrieving the output voltage of the PV grid construction. In this paper we have proposed a strategy that can be helpful to safeguard the excellence of PV output voltage and grid construction. The low and high power of DC to DC boost changer is comprised by using PV scheme that might be based on DVR. This produces a result of low voltage scheme by means of using DVR.

Keywords: DVR, PV and grid.

64. EMOTIONAL RECOGNITION SYSTEM USING EEG AND PSYCHOPHYSIOLOGICAL SIGNALS

Dr. Angelina Geetha 1, Rohan Bernard.A2, Yamini Teja.R3, Pradeep, k4 SV. Shri Bharathi5
1Professor of Computer Science, Hindustan Institute of Technology and Science, Chennai, India
2Students of Computer Science, Hindustan Institute of Technology and Science, Chennai, India
3Students of Computer Science, Hindustan Institute of Technology and Science, Chennai, India
4Students of Computer Science, Hindustan Institute of Technology and Science, Chennai, India
5Assistant Professor(SG) of Computer Science, Hindustan Institute of Technology and Science, Chennai, India

In this paper, we have proposed a strategy that can be helpful to safeguard the excellence of PV output voltage and grid construction. The low and high power of DC to DC boost changer is comprised by using PV scheme that might be based on DVR. This produces a result of low voltage scheme by means of using DVR.
Machine learning has become the frontier for advanced development techniques and this is very prevalent in the field of medical science and engineering. Emotion recognition using signal we directly receive from the brain can be used to accurately identify and diagnose medical health and psychological problems. EEG signals are the brain wave signals that we use to predict the active mood or emotional state of the person. Different difficulties can rise in pursuit of this, such has clarity of the signals, the noise in the received data, inaccuracy in the training data. This paper hopes to give a clear way to achieve emotion recognition by solving these problems. EEG signals take from active participants can give us a active firing of neurons in the neural networks of the brain. As close as we can without the use of invasive techniques and or large machines like FMRI machines which can introduce different levels of stress on its own. The study involves analysing the different sensor channels and preforming a detailed comparisons between the various pre existing machine learning algorithms. Which are Support Vector Machine (SVM), K- nearest neighbour, Logistic Regression, Linear Discriminant Analysis, and Decision Trees each individual models. Data is fed thorough all the given algorithms and tuned. DEAP data set in the data set that is fed into all the above algorithms and the results are observed. In the comparative testing phase SVM is the most accurate machine learning algorithm, yielding a resulting f1 of about 84.73%. Note for the real time data acquired of EEG signals have to be of a high enough quality of data. The results of this study show the different classification models that are used to predict the different emotional states.

65. EMOTIONAL RECOGNITION SYSTEM USING EEG AND PSYCHOPHYSIOLOGICAL SIGNALS

Dr. Angelina Geetha 1, Rohan Bernard.A2, Yamini Teja.R3, Pradeep, k4 SV. Shri Bharathi5
1Professor of Computer Science, Hindustan Institute of Technology and Science, Chennai, India
2Students of Computer Science, Hindustan Institute of Technology and Science, Chennai, India
3Students of Computer Science, Hindustan Institute of Technology and Science, Chennai, India
4Students of Computer Science, Hindustan Institute of Technology and Science, Chennai, India
5 Assistant Professor(SG) of Computer Science, Hindustan Institute of Technology and Science, Chennai, India

Machine learning has become the frontier for advanced development techniques and this is very prevalent in the field of medical science and engineering. Emotion recognition using signal we directly receive from the brain can be used to accurately identify and diagnose medical health and psychological problems. EEG signals are the brain wave signals that we use to predict the active mood or emotional state of the person. Different difficulties can rise in pursuit of this, such has clarity of the signals, the noise in the received data, inaccuracy in the training data. This paper hopes to give a clear way to achieve emotion recognition by solving these problems. EEG signals take from active participants can give us a active firing of neurons in the neural networks of the brain. As close as we can without the use of invasive techniques and or large machines like FMRI machines which can introduce different levels of stress on its own. The study involves analysing the different sensor channels and preforming a detailed comparisons between the various pre existing machine learning algorithms. Which are Support Vector Machine (SVM), K- nearest neighbour, Logistic Regression, Linear Discriminant Analysis, and Decision Trees each individual models. Data is fed thorough all the given algorithms and tuned. DEAP data set in the data set that is fed into all the above algorithms and the results are observed. In the comparative testing phase SVM is the most accurate machine learning algorithm, yielding a resulting f1 of about 84.73%. Note for the real time data acquired of EEG signals have to be of a high enough quality of data. The results of this study show the different classification models that are used to predict the different emotional states.

66. LIGHT WEIGHT PORTABLE OPERATING SYSTEM

M.A Abimukesh
dept. of computer science and engineering
Hindustan institute of technology and science
Chennai, India
The cost of hardware and the computers are increasing every day in the present world where technology keeps updating day to day. The objective of this work is to create a cloud-based, super lightweight Debian based operating system that uses PWA as its applications. Light-weight portable OS can run on any hardware, including older CPU's and raspberry pi. As 5G is the future of internet connectivity, this system will work well as this OS is a cloud-based operating System. Progressive Web App (PWA) is a web page that is converted into an application with the help of service worker which enables system wide interactions such as notifications and shared data. It is native language independent. Light-weight portable OS is based on Debian. It uses custom Desktop Environment and Window Manager. Therefore, on usage of this operating system which consists of PWA, the cost of hardware can be reduced by a huge margin.

Keywords— Cloud-based, Debian, Light-weight, Progressive Web Applications, 5G

67. CUSTOMER SERVICE TICKETING SYSTEM

Zoha Shaikh
Computer Engineering
M.H.Saboo Siddik College Of Engineering
Mumbai, India

Iqra Khan
Computer Engineering
M.H.Saboo Siddik College Of Engineering
Mumbai, India

Er. Farhana Siddiqui
Computer Engineering
M.H.Saboo Siddik College Of Engineering
Mumbai, India

We are developing a web application for the company “MASTER FAX ENTERPRISES” situated in Mumbai. The purpose of Customer Service Ticketing System is to provide services to the customer in an efficient way by automating the existing manual system with the help of full-fledged computer system and computerized equipment. Here, the project represent an efficient way to provide fast and better services to the clients. IT ticketing system is used by many enterprises to deliver rapid, Infallible
internal customer services, which results in better and improved IT department performances and content employees. His electronic document is a “live” template and already defines the components of your paper [title, text, heads, etc.] in its style sheet. *CRITICAL: Do Not Use Symbols, Special Characters, Footnotes, or Math in Paper Title or Abstract.

Keywords—Ticketing system, help desk, automated, manual

68. ANALYSING DEEP LEARNING TECHNIQUES IN MALWARE DETECTION FOR ANDROID APPLICATION

Y Sharon1, Y HariKishore2, R Tejasai3, John Deva Prasanna4
1,2,3 UG Scholar, Department of Computer Science and Engineering
4 Assistant Professor, Department of Computer Science and Engineering
1,2,3,4 Hindustan Institute of Technology and Science, Chennai, India

The Android operating system currently has the largest market share of smartphones. On the other hand, the open-source nature of the Android operating system has resulted in a major increase in Android malware. Malware can steal personal information from users. Since traditional detection approaches have numerous flaws, they pose a significant threat to cyberspace security. With the widespread use of deep learning in recent years, the strategy of using deep learning to detect Android malware has increasingly gained widespread interest from academics both at home and abroad. Despite the fact that deep learning has been used to study Android malware detection, there is currently a shortage of an in-depth and detailed introduction to malware detection's latest research findings supporting deep learning. This thesis investigates and summarizes the most recent research findings by looking at a large number of recent domestic and foreign academic articles, summarizing malware detection architecture and detection systems, and reviewing current problems and challenges. The methodology used in this paper analyses the completed add in order to determine where the efforts are formed, recognize unsolved issues, and inspire future research directions. An in-depth survey of static analysis, dynamic analysis, and hybrid analysis using deep learning methods is analyzed in this work, along with a detailed discussion of their core concepts, contributions, and limitations.

69. TRANSFORMER HEALTH MONITORING AND LINE MAN SAFETY

1,2,3,4,5 Department of Electrical and Electronics, Sri Krishna College of Engineering and Technology, Coimbatore, Tamilnadu, India.

The aim of our project is to design a transformer health monitoring and lineman safety system. Life of the transformer will reduce, if they are subjected to overloading, over current or over voltage, which results in unexpected failures and loss of supply to large number of customers thus affecting system reliability. By monitoring any variations in current, voltage and temperature in the transformer corresponding to the threshold value, the supply will be cut off immediately. It will be stored in cloud for the future analysis. Electrical accidents to the lineman are increasing nowadays. This is mainly due to miscommunication between electrical substation and maintenance staff. If the lineman wants to repair the power system then the maintenance staff turns off the respective power line in the main station. The main station and the fault detected power lines may be in different areas. Many fatal electrical accidents are happen due to miscommunication between the maintenance staff and the electric substation staff. To avoid electrical accidents, the project is designed in such a way only authorized person can operate circuit breaker with the help of a RFID based system. This system is installed at the transformer site and it will help us to identify problems in the transformer by measuring above parameters. With the help of this system we can protect the transformer before any catastrophic failure.
70. COMPARITIVE ANALYSIS OF MACHINE LEARNING ALGORITHMS IN CROP YIELDING AND PRICE PREDICTION

A Tarun Reddy 1, A B V Satish 1, A Mohan Chand Gopi 1, D S John Deva Prasanna 2,
2 Assistant Professor, Department of Computer Science and Engineering
1 UG Scholar, Department of Computer Science and Engineering
1, 2 Hindustan Institute of Technology and Science, Chennai, India

At present scenario due to variation in climatic change and other price influencing parameter farmers face massive loss due to uncertainties in the price fluctuation. Production of crops is a difficult task since it involves various factors like soil fertility, temperature, humidity, pH value etc. If it is possible to know the crop before sowing it, it would be of great help to the farmers. The proposed paper would solve agricultural problems by monitoring the agricultural area on the basis of soil conditions and recommending the most appropriate crop to farmers, thereby helping them to significantly increase productivity and reduce loss. Our paper is a Comparitive analysis of machine learning algorithms in crop yielding and price prediction which makes use of different machine learning techniques such that it recommends the suitable crops based on the input soil parameters. The developed crop yielding and crop price system helps farmers to predict which crop is suitable for soil and price of the commodity. The methodology we use are Decision tree, Random forest and Naive bayes Machine learning algorithms. The parameter considered for price prediction are: rainfall, wholesale price index. Accurate crop price prediction plays important role in crop production management. In general, with help of this application farmers will get to know the crop suitable for the soil and also price of the crop. Which in turn increase countries economy.

71. LHS BASED ALARM POINT LOCATOR IN COAL BELT CONVEYOR

Abirami. R 1, Dhanalakshmi . M 2 and Abinaya . C3
1 Department of Electronicsand Communication Engineering, Ramco Institute of Technology, Rajaplayam

The aim of this project is to detect the location of fire initiated in a coal belt conveyor. The proposed system finds the exact location of the short circuit fault due to the fire breakout. This system uses an STM8S207 microcontroller and a Linear Heat Sensing cable. When the fire is detected in the LHS cable, a signal is sent to the alarm point locator device connected with it. The project represents the distance in terms of meter. The fire breakout occurring at a particular distance is displayed on an LCD interfaced to the microcontroller. Whenever the fire occurs in the cable, the buzzer produces the alarm to alert and to take an immediate action by workers. Since the conveyor belt is long, nearly 500m, the manual locating of the fire point and then renovation is not easy. This is solved by using the alarm point locator. This proposal greatly reduces the time and operates effectively.

Keywords- Fire detection, Belt conveyor, Linear Heat Sensing (LHS), Alarm Point Locator

72. APPLIED ENGINEERING APPROACHES OF ENERGY BLOCKCHAIN IN ASIA

Md Haris Uddin Sharif
University of the Cumberlands
Williamsburg, Kentucky, USA
ORCID: https://orcid.org/0000-0002-1169-8438
Emerging technology that has attracted tremendous attention from power supplier businesses, start-ups, construction companies, financial institutions, domestic governments and the intellectual community is blockchain or distributed leading companies. Many sources from these backgrounds suggest that blockchain provide significant advantages and creativity. Blockchain offer open, tamper-resistant and safe frameworks that will allow new business applications combined with intelligent contracts. Our thesis analyses 140 blockchain studies and start-ups from which we draw up a map for energy applications of the potential and importance of blockchain (Chen, Gui, Chen, & He, 2020). These projects have been routinely categorized into categories in line with the operation, applying network and consensus strategy. Possibilities, future obstacles and drawbacks in a variety of uses, from emerging P2P energy traders and Internet of Things (IoT) to open economies, electric cars, and applications, have been addressed.

Keywords—Blockchain, Consensus Algorithms, Cryptocurrency, P2P (Peer-to-Peer) networks, IoT and Smart Contract.

73. IOT BASED SMART STREET LIGHTING SYSTEM FOR SMART CITY

R. Bhavadeesh  
Computer science and Engineering  
Hindustan Institute of Technology and science  
Chennai, India

D. Srinivas  
Computer science and Engineering  
Hindustan Institute of Technology and science  
Chennai, India

P. Traun chandra kumar  
Computer science and Engineering  
Hindustan Institute of Technology and science  
Chennai, India

Dr. R. Krishnaveni  
Professor, Computer science and Engineering  
Hindustan Institute of Technology and science  
Chennai, India

Today, street lighting commonly uses high-intensity discharge lamps. Almost all of those lights are controlled manually. The cost spent is so huge that all the sodium vapour lamps consume more power. The street light is one of the huge expenses in a city. Currently a manual system is used where the light will be made to switched ON/OFF i.e. the light will made to be switched ON in the evening and switched OFF in the morning. Hence there is a lot of energy wastage between the ON/OFF. Existing street light system suffers from the problems like inefficiency, power wastage and other cumbersome maintenance issues facility. Faulty street lights can also be reason for crimes on roads and highways. By using our system we can operate the light manually by adjusting the brightness, wherever in the world with your mobile or laptop and we are able know the life span of a bulb. As a result, it saves electricity costs largely, prolongs the service life of street lamps and equipment's, and saves labour costs of maintenance and materials significantly. Street light control and management system is made up of the network systems to report the status of the system.

Keywords: Fossil Fuels, Electricity Conservation, Inefficiency, Street Light, Power Wastage and IoT.

74. AN INTELLIGENT APPROACH FOR DENTAL DISEASE DETECTION USING FASTER R-CNN METHOD

K. Rammohan Reddy  
Computer Science and Engineering
Automated medical assistance system is in high demand with the advancements in research within the Deep learning area. However only some of Deep learning models are compatible to provide solution in real time applications. In many such applications, availability of labeled medical dataset could also be a primary challenge and dataset of dental diseases isn't an exception. An accurate classification of dental diseases is addressed during this paper. Labeled dataset consisting of images of 5 different classes is used for classification.In this paper we are suggesting Faster neural network with Densenet model, which has become a best tool in machine learning which enables solving the problems like image recognition, segmentation, classification, etc., with high order of accuracy Powerful Optimization Algorithm, Accelerate the Convergence Speed Reduces the local computation per outer iteration. it's found from literature that Densenet model performs well in natural image classification problems where large dataset is out there. Using this network construction framework on real clinical data at different time stages, we identified common disease-related to differing kinds of cavities like frontal teeth cavities ,inner cavity teeth and oral cancer which will decipher the association between disease state teeth and healthy teeth in oral disease detection. The Built ML model are getting to be saved and converted into JSON file format to integrate into the webapp .The webapp will acts as interface for the Diagnosing the problematic teeth.

Index terms :- Deep learning ,Image classification, Dental Diagnosis,Densenet,Faster R_CNN

---

75. DESIGN AND FABRICATION OF STANDING WHEEL CHAIR

K Karthiga1, Dr.R.Balamurugan2, Poovarasan.S3, Sabarish.S4, Suryaprakash.S5
1,2 Faculties of M.Kumarasamy College of Engineering, Karur
3,4,5 UG Students of M.Kumarasamy College of Engineering, Karur

The wheelchair clients are presented to numerous physical and mental medical issues related with delayed situated stance with being inert in wheelchair, e.g., weariness, torment in hip joint, pressure injuries, and so forth Other related issues are expansion in guardian reliance, lower back torments among parental figures, and injury rates during move support, and so forth Numerous old subjects who can walk are confined in wheelchairs because of the absence of standing capacity. With less parental figures and expanded quantities of lower appendage handicapped and older subjects, there is a significant need of improved wheelchair plans focused on upgraded autonomy of wheelchair clients. The focal point of present work was at planning a novel reconfigurable wheelchair joined with stand and sit abilities with the end goal of improvement of freedom and personal satisfaction of lower appendage incapacitated and old subjects. Further work presents a general item plan and improvement periods of a reconfigurable wheelchair. The significant commitments of paper can be summed up as Modeling and creation of a proposed wheelchair and testing it in an ongoing requirement with load
application. The proposed creative answer for the issues of long haul wheelchair clients has a promising potential to upgrade autonomy and personal satisfaction of crippled individuals.

Keywords: Wheel Chair, Seating & human standing

76. DESIGN AND ANALYSIS OF MULTI VEGETABLE CHOPPER

Dr. R. Balamurugan1, Dr. C. Ramesh2, R Akhil3, G Ashwin4, R Bhavani5
1,2 Faculties of M. Kumarasamy College of Engineering, Karur
3,4,5 UG Students of M. Kumarasamy College of Engineering, Karur

Automation the designing scene's new pattern. A study of the current vegetable cutting machines show the accompanying disadvantages - significant expense, more labour and moderate activity because of manual mediation. In addition, all the works utilize just incomplete mechanization. In our work, the total cycle of vegetable hacking directly from the discovery up to the cleaving is mechanized. Vegetable cutting machines are technically advanced and is used different kinds of vegetables. The vegetable cutter comes with an facility of Manual feeding and automatic discharge in time. These machines comes with contacting parts which is made up of stainless steel that is completely hygienic. The machine comes with various parts such as shaft, Bearing, Metal strip, etc. are made using stainless steel which would be useful for cleaning purposes. The total machine is covered with plywood which would more user friendly to it. In this machine two separate blades are used to cut the vegetables. The machine is mainly designed for cutting the Cabbage and Carrot. Regularly, there are two kinds of edges in the chopper, one has a straight forefront and the other has an arched front line. In view of the more drawn out front line the arched sharp edge has preferred working execution over that of the straight cutting edge.

Keywords - Automatic Machine, chopping, collecting tray, DC Motor, vegetable.

77. DESIGN AND ANALYSIS OF SPUR GEAR TOOTH (ROOT) WITH FILLET & WITHOUT FILLET

Dr. R. Balamurugan1, Dr. C. Mohanraj2, G. MYMOZHLIARSAN3, R. ARAVINDH4, S. ASWIN KISHORE KUMAR5
1,2 Assistant Professors, Department of Mechanical Engineering
3,4,5 UG STUDENTS MECHANICAL ENGINEERING
M. KUMARASAMY COLLEGE OF ENGINEERING, TAMILNADU, INDIA

Stuff teeth disappointment owing to tiredness may be a typical marvel noticed. Indeed, even a small decrease within the root tractable pressure brings regarding extraordinary enlargement within the tiredness lifetime of a stuff. For an extended time, gear configuration has been improved by utilizing improved material, set surfaces with heat treatment and carburization, and shot writing to enhance surface completion so forth. Barely from now on endeavors are created to enhance the solidness and strength by modifying the pressing issue purpose, utilizing the lopsided teeth, adjusting the calculation of root filet bend, etc. the bulk of the on top of techniques do not make sure the compatibility of this stuff frameworks. This work presents the prospects of utilizing the pressure reallocation procedures by presenting the pressure calming highlights within the centered on zone to the good thing about decrease of root filet pressure in spike gear. This in addition guarantees compatibility of existing stuff frameworks. A restricted element model with a fraction of all teeth square measure thought-about for examination and stress assuaging highlights completely differentof various1 sizes square measure bestowed on gear teeth at different areas. Our elementary center is to decrease the pressure that act beneath the teeth of prod gear, by drop-off the pressure gear life is expanded. Our set up will utilized be in rough parcel of land vehicles, in rough parcel of land vehicles gear goes through on high by our set up pressure may be ablated.

78. REAL TIME EARLY DETECTION OF DIABETIC FOOT ULCERATION USING PRESSURE SENSOR WITH TENS

Akshya R, Jagadeeswaran B J, Ramya Sai Bala B and Nithyaa A N
Biomedical Engineering, Rajalakshmi Engineering College Chennai, India

Diabetic foot ulcer is one of the major problem caused due to Diabetes Mellitus. Advancement of blood sugar level beyond normal conditions causes several Cardiovascular problems which lead to improper flow of blood to the feet. This leads to slough formation and loss of sense in the patient’s foot. More than half of the diabetics ignore this problem, which eventually leads to lower leg amputation. This project motive is to identify the patients who are probably to develop diabetic foot ulcers at an early stage. We achieve this by fixing pressure sensors in six pressure points of the foot along with temperature readings are converted into corresponding voltage output by the sensor. All these data are processed and amplified using a microcontroller device and the output is displayed using LCD screen. The peak voltage values of pressure sensor and Temperature sensor indicates that the patient might be liable to develop a foot ulcer in that particular area of the foot. On measuring the values, if the values are more than the specified threshold, TENS is given and the corresponding values are taken and observed again.

Keywords --- diabetic foot ulcer, pressure sensor, microcontroller, TENS.

79. FACE MASK MONITORING FOR EDUCATIONAL INSTITUTIONS AND ORGANIZATIONS

Dr. Angelina Geetha, Sai Laasya Vabilisetty, Naga Chakradhar Rao Rayasam, Yuva Teja Aagollu
Dr. SV. Shri Bharathi
Dept. of Computer Science
Hindustan Institute of Technology and Science Chennai, India

The year 2020 had a disastrous effect on the society by witnessing the outbreak of coronavirus disease and has affected the many lives, businesses and educational institutions. Therefore, one major protection for people in this pandemic situation is to mandatorily wear face mask in public areas. In this paper, we propose a face mask monitoring system, which uses Convolution Neural Networks to train the model, Caffe based DL Detector with MobileNetV2 architecture to extract the facial features for mask detection and allowing our monitoring application to be deployed on any embedded systems like surveillance cameras easily.

Index Terms — Face Mask, Convolutional Neural Network, Caffe based DL detector, Mobile NetV2

80. SMART TRAFFIC SYSTEM-BASED ON OBJECT DETECTION USING MACHINE LEARNING

1,,2,3,4-Hindustan Institute of Technology and science, Chennai

Most of the traffic system is manually operated and hence prone to human error. Malfunctioning at traffic management leads to rule violation so either violation or the malfunctioning of traffic lights should not happen. Operating a better road network for free traffic flow has a direct impact on the productivity of the economy. The policy of congestion detection plays a vital role in this project. The adaptive control technique is reducing the waiting time. Geospatial traffic guidance for emergency vehicles is included in this project. Routing is implemented so that ambulances waiting with critical patients with heavy traffic need not worry about waiting and stopping at every traffic signal. With
this, a smart traffic system is created which helps in making road transportation easier, convenient, faster, and efficient.

81. ADVANCEMENT OF EMERGENCY CARE SYSTEM USING IOT TECHNIQUES

Aabbrar Ahmed K
Dept. of Computer Science and Engineering
C. Abdul Hakeem college of engineering & technology
Vellore, India

Smaeer D
Dept. of Computer Science and Engineering
C. Abdul Hakeem college of engineering & technology
Vellore, India

Prasanth R
Dept. of Computer Science and Engineering
C. Abdul Hakeem college of engineering & technology
Vellore, India

Prakash S
Dept. of Computer Science and Engineering
C. Abdul Hakeem college of engineering & technology
Vellore, India

Siva G
Dept. of Computer Science and Engineering
C. Abdul Hakeem college of engineering & technology
Vellore, India

Life is precious to everyone. Nowadays, accidents are occurring in different places. An estimated report says that person who lost their lives in accident is in higher rate as the accident has not been noticed and the person dies as the medical need which has to be done to them is not received in the correct time. Accidents that are taking place is unavoidable for some situations. But if proper information about the accident reaches the hospital the concerned person’s life would be saved. In an existing approach, Gyroscope detects the change in rotational angle. When a vehicle met an accident and crashed upside down, so that gyroscope detects that its value exceeds threshold limit. Then it indicates GSM to send an alert message to the emergency service. In such case, when the car ride into slope, the gyroscope may deliver false alert to the emergency system implicitly. To overcome from this drawback we proposed a new Emergency care system where our system uses ultrasonic sensor, pressure sensor and GPS which will be connected to the vehicle through OEM. As soon as the accident happens GSM will send alert message with location to the emergency number about the severity of the accident. In such cases, actions would be taken as soon as possible and lives can be saved.

Keywords— Advanced vehicle system, IoT, Global Positioning System (GPS), Sensing Technology, Emergency care Application.

82. FABRICATION OF MINI-DIRT BIKE

THIVIN KUMAR N
Mechanical Engineering,
Bannari Amman Institute of Technology,
Anna University Chennai,
Coimbatore, India

VIJAYAASHVIN P J
Mechanical Engineering,
Bannari Amman Institute of Technology,
Anna University Chennai,
Hosur, India

TAMILARASAN G K
Mechanical Engineering,
Bannari Amman Institute of Technology,
Anna University Chennai,
Karur, India

This work deals with design and fabrication of off-road vehicle with maximum fuel efficiency and safety to the driver. The transport facilities on the Rough or gravel surfaces are very low and this type of roads need high
performing vehicles to pass through them. The vehicles with high traction and higher ground clearance allow them to pass through this types of areas. This project focuses on making such an off-road vehicle with higher durability. The vehicle is fabricated using scab materials and thus it is economical. The Chassis of the Vehicle is well Designed and analysed to obtain the performance. The performance of the bike is tested and analysed. The vehicle is driven by a petrol engine and they are modified to be light weighed to be portable as well and they allow access to transportation even at the rough terrain region.

KEYWORDS—Durability; Traction; Portable; ANSYS

83. APPLICATION OF ARTIFICIAL INTELLIGENCE IN CYBER SECURITY – A DETAIL SURVEY ON INTRUSION DETECTION SYSTEM

Dr. R. Deepalakshmi1, Dr.R.Vijayalakshmi2, C. Sam Ruben3, R. Pandiya Rajan4, J. Pradeep5
1 Professor, 2 Associate Professor, 3, 4, 5 UG Students
Department of Computer Science and Engineering
Velammal College of Engineering and Technology, Madurai, Tamil Nadu, India

The rapid increasing of information and technological field, including the Internet has bred positive lifestyle to organizations and social lives. The Internet provides us an platform to facilitate communication and networking systems. It supports knowledge sharing and social interaction which are important ingredients for human development. On occasion to the increasing complexity of the cybercrime all over the world, there is an need for cyber security to be more robust and intelligent. This makes the security mechanisms to be capable of making real-time decisions which can effectively respond to the unauthorized attacks. Hereby, the organizations are rapidly challenged by a wide range of cyber-attacks. These type of attacks are characterized by a high level of strong techniques that calls for the need of obtaining the Artificial Intelligence (AI) or intelligent agents to get back them. Similarly, cyber-defense mechanism must be increasingly intelligent, flexible, and robust enough to detect several types of threats and mitigate against them. Using several types of systematic mapping, the attacks were analyzed using quantitative and qualitative method. It was observed that Artificial intelligence methods have made remarkable contributions to combat cybercrimes with significant improvement in intrusion detection systems (IDS). In these systems the normal network behavior is learned by processing previously recorded benign data packets which allows the system to identify new attack types by analyzing network traffic for anomalous data flows. This project aims to implement a classifier capable of identifying network traffic as either benign or malicious attacks or a quick survey of cyber attacks based on machine learning or deep learning methodologies.

Keywords: Artificial Intelligence, Information Technology, Cyber Security, Cyber attack, Intrusion Detection System (IDS).

84. A Hospital Application involving Deep Learning Methodology called Modified Resnet for Detecting Covid-19

Sai Rishitha
UG Student, Dept of CSE
SRMIST
Chennai, India

Varri Sanjana
UG Student, Dept of CSE
SRMIST
Chennai, India

Kayalvizhi R
Assistant Professor, Dept of CSE
SRMIST
Chennai, India

Currently detecting covid-19 has become the biggest challenge in the world, given the rapid spread of the disease. Due to its contagious nature, this virus has become a threat and spread widely. So, it is of primary concern to diagnose this virus and to treat affected patients we have to find some tools or AI methods to diagnose the disease quickly thereby putting a stop to the spread. So, we have decided to build a deep learning convolution neural network model from chest x-ray images. Detecting covid-19 is really important these days given the current scenario. It is of primary concern to detect this disease quickly and efficiently rather than following traditional techniques like blood tests which are comparatively slow. This project makes use of a deep learning algorithm called the Modified Resnet
algorithm to detect Covid-19 and its presence without the need for several consultations from doctors. A web application using react JS is developed to ease the prediction of Covid-19 diagnosis in hospitals. This leads to an earlier prediction of the presence of Covid-19 disease and allows us to take prior actions immediately to avoid further consequences effectively and cheaply avoiding human error rate.

Keywords—Covid-19, Deep Learning, Classification, Detection, Modified Resnet

85. “ORDER N EAT”- ANDROID APP USED DURING COVID PANDEMIC USING FIREBASE

Gangadharan Sivakumar
Department of Computer Science and Engineering
SRM Institute of Science and Technology
Kattankulathur, 603203, Kanchipuram
Chennai, TN, India

Somaskandan K
Department of Computer Science and Engineering
SRM Institute of Science and Technology
Kattankulathur, 603203, Kanchipuram
Chennai, TN, India

Dr. M. Aruna
Assistant Professor
Department of Computer Science and Engineering
Faculty of Engineering and Technology
SRM Institute of Science and Technology
Kattankulathur, 603203, Kanchipuram
Chennai, TN, India

Food is the ultimate source of energy and every organism in this world needs food to survive. Humans evolved to develop and use modern technologies to ease their supply of food. This means that they no longer have to wait to order their food or receive their food items from the restaurant but still in majority of the organizations and institutions customers are made to wait to receive their order so we have created an android application for food parcels management using firebase which is exclusively designed for the members of an organization or institution to order the food items and collect it from the restaurant after preparation or get it delivered to the location without any need for physical presence.

Keywords— Food ordering system, Mobile application, Food parcels management.

86. AN EFFICIENT MODEL FOR SQL INJECTION ATTACK AND PREVENTION

C.J.Keerthi Reddy, Sirishma.Pudota, Gaurav A Agarwal, Sathya Priya
Computer Science & Engineering
Hindustan Institute Of Technology &Science Chennai, India

This project deals about how to attack on a website using SQL injection and prevention of the same website. Attacking the website is done by inserting SQL queries like ‘or’ and ‘and’ in the database so when an attacker types anything or x=x in password field attacker can retrieve all the information about users. In prevention we are adding Application programming interface by giving some special characters in password field which is also php language only but we will use slim framework to do this.

Keywords – Sql queries, Application programming interface, Slim framework.
87. SIGN LANGUAGE CONVERTER AND RECOGNITION

1. Dr.M.E.Paramasivam - Assistant Professor, Department of ECE, Sona College of Technology, Salem.

The Sign language Converter is the unique method in which the deaf people can communicate in an efficient way. The major drawback in this method is that conversation between the common people those who would not determine the sign language are not able to connect with the deaf people. This project mainly focus in building the small gap in between deaf people and common people. Each person has capability to connect with deaf people, but it was being distracted with some of the disorders in speech. This method is the another way to communicate with people those who have the hearing problem. The main motive of our project is that to use a different method in which the deaf could easily connect with the common people by using hand movements. In this case, the background of the system need not to be in complete black. The Vision based on hand movement detection method is being noticed here in which hand is playing an important role in communication between dumb and common people. Considering the report of previous work, several methods are applicable in hand detection and recognition which were mentioned earlier. The Vision method has some of the provocations such as hardware methods which are in traditional type, maximum usage of computer pattern and vision recognition. In this Sign Language Converter and Recognition system, there is some possibility in which we can overcome these challenges as specified above and it will be naturally accepted by the scientific world.

88. SOCIAL THEORIES BASED UNSUPERVISED COMMUNITY DETECTION OVER SOCIAL MEDIA.

Shraddha Sharma1, Yogadhar Pandey2
Department Of Computer science & Engineering, TIT, Bhopal

Advancements in web technologies in conjunction with the advent of social media facilitate online users to share contents and interact on a shared platform. Social media mining allows users to visualize, evaluate, analyze, and extract meaningful patterns and trends over the internet. Numerous algorithms and techniques have been presented for the huge investigation of social media data. Community detection over social media is the most attracting field of interest for researchers in the area of social media mining. Identifying densely connected network nodes and forming a group or community based on the density of inter-connection among them is called community detection. Detection of such communities is very crucial for a variety of applications in order to analyze the social network. Various algorithms have been introduced in literature to analyze and discover the potential communities over the social media. Recently, recognition of effective users in social media has received chief concern in community detection which leads toward influence-based community detection in social media mining. Identification of community through influence is a novel way of detection in social media mining. This dissertation analyzes the influence, homophile and confounding in community detection, and presents a framework which is responsible for effective feature extraction for influence based community detection. The main objective of the paper is identification of community using influence.

Keywords- Social Media, Social Media Mining, Community Detection, Influence, Homophiile, Confounding.

89. SMART TRASH AND DUST COLLECTION- SEGREGATION ROBOT

Priscilla Chelsea R K
Department of Computer Science
Waste generation, insufficient waste collection, transportation, treatment, and disposal are major environmental issues in India. In India, waste production ranges from 200 to 870 grammes per day, and the rate of increase is around 1.3 percent per capita once a year. To help solve this issue, we came up with a concept that uses IoT and CNN to help segregate waste. Smart Bins contribute to a healthier, safer, and more sanitary environment, as well as improved operational quality, all while lowering maintenance costs, energy, and roadside pollution. This paper introduces an Internet of Things interface for both autonomous and manual control modes. When the object is put in front of the camera, the camera determines whether it is a waste or not. The trash is retrieved by a robotic arm, which then positions it on a metal detector and moisture sensor to assess if it is metallic, nonmetallic, wet, or dry. A dust-collector is mounted at the rock bottom of the container, and an IR sensor is used to see the depth of the trash. The results of the designed prototype were sufficient to justify the tactic used. With this research, the waste management system is taking the first steps toward being a viable system that will result in a healthy climate for this and future years.

Key words: IoT, IR sensor, Metal sensor, Moisture, Robotic arm.

90. NON-HOMOGENEOUS ROUGH FINITE STATE AUTOMATON

B. Praba
Sri Sivasubramaniya Nadar College of Engineering
Chennai, Tamil nadu, India.

R. Saranya
Sri Sivasubramaniya Nadar College of Engineering
Chennai, Tamil nadu, India.

The study of finite state automaton is an essential tool in machine learning and artificial intelligence. The class of rough finite state automaton captures the uncertainty using the rough transition map. The need to generalize this concept arises to adhere the dynamical behaviour of the system. Hence this paper focuses on defining non-homogeneous rough finite state automaton. Methodology: With the aid of Rough finite state automata we define the concept of non-homogeneous rough finite state automata. Findings- Non homogeneous Rough Finite State Automata (NRFSA) $M_t$ is defined by a tuple $(Q, \Sigma, \delta_t, q_0(t), F(t))$ The dynamical behaviour of any system can be expressed in terms of an information system at time $t$. This leading us to define non-homogeneous rough finite state automaton. For each time ‘$t$’ we generate lower approximation rough finite state automaton $M^-t$ and the upper approximation rough finite state automaton $M^+t$ and the defined concepts are elaborated with suitable examples. The ordered pair $M_t=(M(t)_-,M(t)^-)$ is called as the non-homogeneous rough finite state automaton. Conclusion: Over all our study reveals the characterization of the system which changes its behaviour dynamically over a time ‘$t$’. Novelty: The novelty of the proposed article is that it clearly immense the system behaviour over a time ‘$t$’. Using this concept the possible and the definite transitions in the system can be calculated in any given time ‘$t$’.

AMS Classification 03D05, 20F10, 37B15, 68Q45, 69Q80
Key Words- Information System, Rough set, Automata, Language generated by an Automaton.
91. SMART GLOVE FOR ELDERLY PATIENTS

Jane Elona. J
Department of Biomedical Engineering Student of Jerusalem College of Engineering Chennai

Santhiya. B
Department of Biomedical Engineering Student of Jerusalem College of Engineering Chennai

Dinesh Kumar. M
Department of Biomedical Engineering Student of Jerusalem College of Engineering Chennai

Bismi. J.H
Department of Biomedical Engineering Student of Jerusalem College of Engineering Chennai

The world needs to be concerned about the elderly patient’s around and treat them the way they deserve to be treated. Despite having lots of orphanages, homes etc… for them, it doesn’t stop their insecurity to overcome, assaulters or molesters. This project suggests a smart glove that not only helps these patients to take care themselves but also help them be fearless. This project makes use of six parameters like GPS, GSM modules, Pulse oximeter, Touch sensor, Accelerometer, Bluetooth that are interfaced with Arduino. If elderly patients are facing any health-related troubles or in any kind of danger, can immediately make use of this device, embedded in their glove to escape from the dangerous situation by alerting the caretaker.

Keywords: Embedded System; Arduino; Tracking System; Global Positioning System (GPS)

92. ATTACK DETECTION USING K-NN ALGORITHM

T P G V S Giridhar Naagar, P Faisal Khan, N Hemanth, A Thamarai Selvi
Department of Computer Science and Engineering
Hindustan Institute of Technology and Science
padur, chennai, India

Data mining is looking at colossal prior databases to create new data. Data mining is otherwise called information disclosure and it is a cycle of collecting of data from alternate points of view additionally summing up it into valuable data. Meaning of data can be utilized to build income, reduces expenses, or both. Data mining is an insightful device for examining data. The product permits clients to dissect data from a wide range of points, order it, and sum up the connections recognized. All things considered, data mining is the way toward looking through examples or connections among different fields in enormous social databases. In this paper, Cyber Crime the board is a fascinating application where it assumes a significant part in the treatment of wrongdoing data. Cyber Crime examination has an extremely critical part in the police framework in any country. There had been a tremendous expansion in wrongdoing lately. With the quick prevalence of the web, wrongdoing data kept up on the web is getting progressively wild. In this paper, data mining procedures are utilized to dissect web data. This paper presents a point-by-point concentrate on classification and clustering. Classification is the way toward ordering the wrongdoing type Clustering is the way toward consolidating data objects into gatherings. Our outcomes show the best precision 99.9% from the conventional models.

Keywords: Clustering, machine learning, cyber.

93. RECOMMENDATION MODEL IN DIGITAL MARKETING USING ARTIFICIAL INTELLIGENCE
The speedy growth collection of data has led to the beginning filtering information. Large amount of data is being used to create innovative efficient systems and this is where Recommendation Systems work for us. Recommender systems are among the most efficient tools for data filtering to improve the quality of search results and provide things that are more relevant to the search item or are related to the search history of the user, especially from big data on net. Among those, content recommendation systems are the valuable tools to support users in categorising them with related interests. This makes them a crucial part of websites and e-commerce applications. Recommendations could be personalized or non-personalized. In non-personalized type, selection of the items for a user is based on the number of the periods that an item has been visited in the past by other users. However, in the personalized type, the main purpose is to provide the best items to the user based on her perception and preferences. Although, in many domains recommender systems gained substantial upgrades and provide better services for users, it still requires further research to improve precision of content recommendations in many phases. The method used in designing the recommendation is hybrid method of filtering with combination of both content & collaborative approach.

Keywords— Content Recommender Systems, Collaborative Filtering, Content-based Filtering, Hybrid Filtering Recommendation, Evaluation Metrics.

94. DIAGNOSIS OF DIABETIC RETINOPATHY FROM FUNDAL PHOTOGRAPHY

Dr. Jamuna Rani M
Department of Electronics and Communication Engineering
Sona College of Technology
Anna University
Salem, India

Dr. Shanthi T
Department of Electronics and Communication Engineering
Sona College of Technology
Anna University
Salem, India

Ms. Kaviya P
Department of Electronics and Communication Engineering
Sona College of Technology
Anna University
Salem, India

Diabetic Retinopathy is an eye disease caused by Diabetes Mellitus. It is a major disease that has affected millions of people, the rate of people getting affected will increase exponentially in the upcoming years. It is caused by high blood sugar due to diabetes. It can be treated early during the starting stages, the vision problem will reduce. This project aims to create a system that can integrate image processing techniques together to predict whether the retinal image received from the patient is affected by DR or not. Color retinal images are important tools for diagnosing diabetic retinopathy. Images are captured from a fundus camera, stored on a computer, analyzed using a feed propagation neural network. Diabetic Retinopathy can be deducted by using Hemorrhages and Exudates deduction. After the elimination of the optic nerve and nerve cup, hemorrhages and exudates are deducted. The network is trained to recognize features in the retinal image. The digital filtering techniques and different features of extraction by GLCM are evaluated. ANN classification identifies the type of the diabetic retinopathy disease. The images are used to evaluate the neural network training tools for training state, regression, performance. The confusion matrix is also identified in this project.
Keywords—Image processing, Hemorrhage deduction, Exudates deduction, GLCM features, neural network, ANN classification.

95. TOLL MANAGEMENT SYSTEM USING BLOCKCHAIN

P.Dinesh Kumar 1, Dr.S.Harihara Gopalan 2

1 – Student, 2- Associate Professor
Department of Computer Science and Engineering
Sri Ramakrishna Engineering College Coimbatore, India

Blockchain is one among the recent trends where cryptocurrencies are used everywhere nows-a-days. Cryptocurrencies like bitcoin, ethereum and litecoin are the cryptocurrencies which are used in a wide range. Usage of cryptocurrencies are high compared to previous years which leads to increase in the value of cryptocurrencies according to the economy of a particular country. Ethereum is one among the cryptocurrency which had a huge hike at the starting of this year. Ethereum the second generation blockchain which is more secured compared to the first generation blockchain bitcoin. The purpose of this paper is to explain about decentralized application and warming of a real time application with a personal ethereum blockchain and a development environment using ethereum virtual machine. This will give ideas on how to work with real time application on a personal blockchain using ethereum. Using smart contracts for real time applications makes work easier between both end of transaction.

Keywords – Smart Contracts, Blockchain, Ethereum, Cryptocurrency

96. DESIGN AND ANALYSIS OF ANKLE EXOSKELETON FRAME

Dr.R.Balamurugan1, Mr.S.Gopalakrishnan2, Kathirkaman V3, Raj Bharath S4, Roobankumar R5

1,2 Facilities of M.Kumarasamy College of Engineering,Thalavapalayam,Karur
3,4,5 UG students of M.Kumarasamy College of Engineering,Thalavapalayam,Karur

This work is about a comparative study of an Ankle Exo-skeleton frame designing and analysis of stress and strain properties. The main aim of our work is to reduce the weight and optimizing the cost of the model. Our design is the early primitive type model frame which is less in weight and it will be suitable for both Passive type of Exo-skeleton and Non Passive type of Exo-skeleton. For that we design a standard frame model with the help of 3-D modeling software SOLIDWORKS and we did analysis with the help of ANSYS workbench to find equivalent stress, equivalent strain, total deformation and life. To improve the results research has been done and with the help of various research paper study different materials were considered like different types of steel and aluminum alloys. Finally for our work we select Carbon fiber material because of it’s high yield strength and less weight properties. We compared our results with two other existing frame design models which is made out from Aluminum alloy 7075 and Al 6061 T6. We also find equivalent stress and strain properties. In future we planed to manufacture the prototype model for our design. We collected data from patients who have problems in ankle gait movement.

KEYWORDS: Ankle, Exo-skeleton, Design, SOLIDWORKS, ANSYS.

97. DEEP LEARNING BASED TRAFFIC IDENTIFICATION AND ACCIDENT DETECTION IN REMOTE ENVIRONMENT

Dr. SathyaPriya.S, Vikram Kumar, Y.Pavan Teja, Samanthapudi Anil, Dr. S Revathy
Dept. of Computer Science and Engineering,
Hindustan Institute of Technology and Science,
Chennai, Tamil Nadu

Events like traffic jam, road accident, vehicle fire, robbery, vehicle breakdown, etc. are most common events which occurs in road. In cities traffic control department, fire brigade and other agencies are
available to handle such events but even there work fully depends on information, faster the information reaches faster will be the action and intensity of damage can be reduced. But unfortunately currently used method to keep surveillance like camera, police and highway patrol, traffic signal, manual traffic signal, control rooms, etc. are not sufficient to tackle such situation. There comes the demand of intelligent and fast system, which is capable enough to find event then and there and alert same to authority. The proposed system namely “Deep learning based traffic identification and accident detection system” uses deep learning algorithm and most specifically Convolutional neural network to process real time video, detect and alert authority. The proposed system can be used in the city to regulate traffic and detect accident or mobs like situation. And, in remote highways and roadways it can detect accident, vehicle breakdown, out of gas and other suspicious activity.

98. IMPROVING THE PROGNOSIS OF MEDICINE SYMPTOMS AND SIDE EFFECTS THROUGH COMBINED LEARNING WITH SYNTACTIC STRUCTURE SENTENCES USING MACHINE LEARNING ALGORITHM

1st Mrs. D. Mohanapriya
Assistant professor
Department of Computer Science, PSG College of Arts & Science & Research Scholar of Kongunadu, Arts and Science College, Coimbatore, Tamil Nadu, India

2nd Dr. R. Beena
Associate Professor
Department of Computer Science, Kongunadu Arts and Science College, Coimbatore, Tamil Nadu, India

4th Mrs. R. Hemalatha
Assistant professor
Department of Computer Science, PSG College of Arts & Science
Coimbatore, Tamil Nadu, India

3rd Dr. S. Selvi
Associate Professor
Department of Computer Science, PSG College of Arts & Science
Coimbatore, Tamil Nadu, India

5th Ms. K. Rinsina
Department of Computer Science, PSG College of Arts & Science
Coimbatore, Tamil Nadu, India

The medicines recognition process requires a time-consuming and expensive process to find the right medicine to treat effectively for patients. If the candidate who has prepared the medicine knows that the unexpected action of the medicine may cause serious injury to the patient, the side effects of the medicine and the efficacy of the medicine should be recognized. From the large amount of data it is possible to discover the hidden relationship between genes, diseases and medicines. One of the useful methods is text mining. A text mining method for predicting medicine symptoms using drug models and natural language processing (piston) to diagnose side effects between drug-disease and medicine-side effects. Medicines and genes combine words collected from sentences, and natural language processing (NLP) is used to identify words that relate to medicines and genes. By identifying medicines for phenotypes a classifier can be taught from the medicine-topic probability matrix to the high-grade topic of medicine. It also predicts a link between side effects and medication. So in this study, Stimulates syntax structure from undeclared phrases and proposes an advanced piston (ipiston), which improves the quality of topics found by the designated authentication system. The graph is structured using NLP, and sentences are extracted from the collected literature data. After that, the genetic regulation score (GRS) of each sentence is premeditated to describe the association between genes and diseases. Using topic modeling discovered biomedical institutions in the biomedical
repository to improve Conditional Random Field (CRF) and Bi-directional Long-Short Term Memory-CRF (BLSTM-CRF). CRF is a hierarchical modeling structure based on the method of identifying biomedical components by conditional probability dispersals of biomedical components in the documents it collects. This BLSDM-CRF is an in-depth learning technique, used to improve the effectiveness of CRF based labeled corporate recognition. Syntactic distance dimension is considered by the syntactic structure of sentences. Syntactic system, biomedical companies and medicine-topic probability team, medicine-phenotype and medicine-side effects provides information to CRF, BLSDM-CRF, Naive Bayes, Cart and Logistics implications for the prognosis of associations.

Keywords—Medicine discovery, Medicine-phenotype association, Medicine-side effect association, labeled entity recognition, Conditional Random Field, Bi-directional Long-Short Term Memory, Syntactic Structure.

99. PREDICTING DRUG INDICATIONS AND SIDE EFFECTS USING DEEP LEARNING AND TRANSFER LEARNING

1st Mrs. D. Mohanapriya
Assistant professor
Department of Computer Science, PSG College of Arts & Science & Research Scholar of Kongunadu, Arts and Science College, Coimbatore, Tamil Nadu, India

2nd Dr. R. Beena
Associate Professor
Department of Computer Science, Kongunadu Arts and Science College, Coimbatore, Tamil Nadu, India

In the area of biology, text mining is commonly used since it obtains the unknown relationship among medicines, phenotypes and syndromes from much information. Enhanced Topic modeling with Improved Predict drug Indications and Side effects using Topic modelling and Natural language processing (ETP-IPISTON) has been employed to predict the drug-phenotype and drug-side effect association. Initially, corpus documents are collected from the literature data and the topics in the data are modeled using logistic Linear Discriminative Analysis (LDA) and Bi-directional Long-Short Term Memory-Conditional Random Field (BILSTM-CRF). From the sentences in the literature data, a dependency graph was constructed which discovered the relations between gene and drug. The product of the drug on phenotype rule was identified by the Gene Regulation Score (GRS) which creates the drug-topic probability matrix. The probability matrix and a syntactic distance measure was processed in Classification And Regression Tree (CART), Naïve Bayes (NB), logistic regression and Convolutional Neural Network (CNN) classifiers for estimating the drug-gene and drug-side effects. Besides the literature data, social media offers various promising resources with massive volume of data that can be useful in the drug-phenotype and drug-side effect association prediction. So in this paper, drug information with gene, disease and side effects are extracted from different social media such as Twitter, Facebook and LinkedIn and it can be used with the literature data to provide more relevant disease and drug relations. In addition to this, topic modeling with transfer learning is introduced to consider the element categories, probability of overlapping elements and deep contextual significance of a text for better modeling of topics. The topic modeling with transfer learning shares as much knowledge as possible between the literature data and social media information for topic modeling. The topics from social media and literature data are used for creating the drug-topic matrix. The probability matrix and syntactic distance measure are given as input to CART, NB, logistic regression and CNN for estimating the drug-gene and drug-side effect association. This proposed work is named as Enhanced Topic Modeling with Transfer Learning-IPISTON (ETPTL-IPiston). The simulation findings exhibit that the efficiency of ETPTL-IPISTON than the traditional methods.

Keywords—drug-gene relationship, drug-side effect, topic modeling, named entity recognition, social media, transfer learning.
Sitting is one of the most common activity in which people tend to rest on a chair for several hours. Approximately, most adults and children go through 55% of their functioning hours in desk bound postures in a day. At different sitting postures, there is a specific amount of pressure built up at the sacral region of the spine that will change with the pelvic tilt at different positions. Wrong postures and prolonged inactivity can cause increase in pressure applied at the sacral region which can cause episodes of lower back pain. Sitting by itself does not cause pressure. The increase in the risk leading to pain is due to continuous sitting with the addition of whole body vibration and awkward sitting positions. This can cause hindrance to day to day activities affecting work efficiency. For maintaining an energy efficient posture the spinopelvic alignment is important. The main aim of our study is to assess the pressure applied at the sacral region for subjects of different Body Mass Index at two different angular positions namely 90o and 135o with respect to the base of chair. For this a user friendly, portable, one fits all sized belt with four pressure sensors was designed and developed. The results and analysis suggested that at increased pelvic tilt posteriorly, more pressure was applied at the upper sacral region and this increase was more evident for subjects with Body Mass Index falling under the overweight category.

Keywords— Body mass index, Lower back pain, Overweight, Pelvic tilt, Sacral pressure, sitting postures

101. DETECTION OF ACTIVE ATTACKS USING ENSEMBLE MACHINE LEARNING APPROACH

S.Revathy
Cyber-Attackers entrap online users and companies by stealing their sensitive information without their knowledge. Sensitive informations such as username, password, debit card or credit card number and Centralized servers of Organisations are hacked by the attackers. Some of the Cyber-attacks are Phishing Attack where attackers make the online users to trust their websites as a legitimate website and retrieve their personal information by making them as a prey for cyber attacks. Malware attack is a one where attacker will inject a Malicious Software into the company server or any online users device, without their knowledge and steal all the data in their devices and servers. Intrusion is a invasion, where attacker will attack the network and theft all the network resources. But there are many types of Cyber Attacks solutions such as blacklist or whitelist, heuristic, visual similarity-based approaches, Intrusion Detection System, Signature Based, Heuristic Based, Specification Based, Anomaly based methods are proposed but they have some disadvantages. Because of few unsecured HTTP websites and Lack of Cyber Knowledge Cyber-attacks are increasing day by day. A classification model is proposed with different Machine Learning algorithms using Ensemble Approach to overcome the disadvantages of existing anti-phishing techniques that gives better accuracy. Proposed model adapts ensemble approach by combining different Machine Learning algorithms.

Index terms: Ensemble approach, Feature selection, Intrusion detection, Machine Learning, Phishing detection

102. AN ANALYSIS OF ORGANIZATIONAL BEHAVIOUR USING K-APPROXIMATION SPACES

B.Praba
Department of Mathematics,
SSN College of Engineering,
Chennai, Tamil Nadu, India.

G.Gomathi
Department of Mathematics,
Chennai Institute of Technology,
Chennai, Tamil Nadu, India.
Rough set theory and Soft set theory are the two mathematical concepts that plays a vital role in decision making problems. In complex systems, the objects are equipped with various set of attributes and that will add the complexity in making decision. In this paper, we introduce k-approximation space and covering based k-soft approximation space that leads us to define k-rough set and covering based k-soft rough set. The significance of these two concepts are illustrated and compared in analyzing the Organizational behaviour of the employees in an Organization.

Keywords: Fuzzy set theory; Rough set theory; Soft set theory; Covering.

103. REINFORCEMENT LEARNING METHOD FOR MODELLING DDOS ATTACKS

VINISHAMAHESWARI KUMAR, SNEHA.E, SHRINITHI.V
K.S. RANGASAMY COLLEGE OF TECHNOLOGY

Disseminated disavowal of administration (DDoS) assaults establish a quickly advancing danger in the current Internet. In the field of DDoS assaults, as in any remaining spaces of network protection, the fight between the safeguard and the blade doesn't stop. Assailants are utilizing progressively refined strategies. Arrangement suppliers follow them, delivering new items to forestall malignant purpose. Old instruments quit working, new methodologies and devices are needed all together not to turn into a casualty of cybercriminals. This archive examines the improvement way that devices for countering DDoS assaults go through affected by changing cybercriminal approaches. This paper talks about support preparing strategies, gives a concise portrayal of them, and looks at the extent of support preparing in protection against DDoS assaults. The wording of supported learning is additionally portrayed, and a specialist based learning calculation is depicted.

104. REAL TIME DEPLOYMENT AND PREDICTING DIFFERENT CROP DISEASES WITH A MOBILE APPLICATION

Mr. Gokul C,
UG Scholar,
Department of Computer Science and Engineering,
Hindustan Institute of Technology and Science, Chennai, India

Mr. Yoganandh K,
UG Scholar,
Department of Computer Science and Engineering,
Hindustan Institute of Technology and Science, Chennai, India

Mr. D.S.John Deva Prasanna, AP(SG),
Corresponding author,
Assistant Professor, Department of Computer Science and Engineering,
Hindustan Institute of Technology and Science, Chennai, India

Over last few decades there has been an effort of developing automatic plant disease detection and recognition. So that in this consequence, the farmer can take precaution on that time with apposite treatment. The disease detection and identification in large field through automatic technique is really useful as it reduces the work, time and cost for observation and evaluation of disease symptoms. Earlier mpeg-7 visual descriptors were used to detect diseases in maize plants and the drawback is it as low accuracy rate, in this project we use a modified squeezenet algorithm which is a low weighted algorithm. We are using modified squeeze net instead normal squeeze net algorithm because to increase accuracy by increasing the convolutional layers. mobile application is developed where we can capture image of the affected agricultural crop plant and as well as suggests the type of chemical fertilizer to be used to the farmer to decrease the loss of yield due to the use of wrong fertilizers. The accuracy of the result is found to be better than the existing algorithms.
105. SPAM CLASSIFICATION IN E-MAILS USING MACHINE LEARNING ALGORITHMS

1S.Soundariya, 2Navin Kumar M, 3Anirudh N, 4Sutharsan S
[1] Assistant Professor, Dr. Mahalingam College of Engineering & Technology, Pollachi
[2,3,4] Student, Dr. Mahalingam College of Engineering & Technology, Pollachi

Internet is in its boom nowadays and also users of internet are increasing every day with the raise of internet users there is an equal risk of insecurity is growing and E-mail spam is also a major problem nowadays. Many people even administrations are using this illegally to send un ethical or fraud contents to distract users are to promote them for using in genuine products, this can also be used to send malicious links to harm our systems and they also can use it for data. So, it’s been a mandatory or necessary thing to identify those spam mails which are fraud, this proposed system will help to identify spam mails by using machine learning techniques. Machine learning algorithms are used to filter the spam e-mail in an effective manner. E-mails can be filtered as spam or non-spam based on certain features such as the occurrence or frequency of a few words in the e-mail. Based on these characteristics, the dataset is trained using four different models such as Naïve Bayes, Support Vector Machine, Decision Tree, and Random Forest. This work compares machine learning algorithms by applying all these on our own email data sets and found is selected for the email spam detection having best precision and accuracy.

Keywords: Spam classification, Emails, Machine Learning, precision and accuracy

106. OPTIMAL ECONOMIC DISPATCH USING GENETIC ALGORITHM

Aarthi Arunagiri
Electrical Engineering Department, (PG scholar), Government college of technology (Affiliated to Anna University)
Coimbatore, India

Dr.N.Narmadhai
Electrical Engineering Department, (Professor)
Government college of technology (Affiliated to Anna University)
Coimbatore, India

The complexity in modern power system around the world has grown due to its interconnections and the power demand. The focus of any power system remains on enhanced performance of the system, reliable power, low cost, generation cost and the optimal economic dispatch. The economic load dispatch is an integral part of any power system, as the load may be near or at distant from the power generation and the economical dispatch has to be done in either case. Certain Economic Load Dispatch (ELD) problems are signified as non-linear optimization problem having equality and inequality constraints. The cost function for each unit can be resolved using mathematical or analytical methods. The various methods that provide solution to ELD are lambda iteration method, particle swarm optimization, numerical method, evolutionary algorithm; Genetic algorithm etc., In this paper, Real Coded Genetic Algorithm (RCGA) is implemented to find the solution of economic load dispatch problem. It is tested on three generators including equality and inequality constraints without considering the losses. The code is executed in MATLAB and the results are compared against the conventional lambda iteration method satisfying the constraints.

Keywords - Economic load dispatch, real coded genetic algorithm, genetic algorithm.
107. COMPARITIVE STUDY OVER DIFFERENT MACHINE LEARNING ALGORITHMS ON BREAST CANCER DETECTION

A Malarvizhi, A Nagappan
1 Assistant Professor of Electronics and Communication Engineering, Vinayaka Mission’s Kirupananda Vairayar Engineering College, Vinayaka Mission’s Research Foundation (Deemed to be University), Salem 636308, Tamilnadu, India.
2 Principal, Vinayaka Mission’s Kirupananda Vairayar Engineering College, Vinayaka Mission’s Research Foundation (Deemed to be University), Salem 636308, Tamilnadu, India.

Breast cancer is the recurrent cancer among worldwide. Even in developing medical progress, Breast cancer takes place the second leading cancer compare to other types of cancer. So, early stage of breast cancer diagnosis results in mortality reduction. But it’s very challenging role for the researchers to diagnose breast abnormalities. Computing (AI) is often employed in medical applications like detection of the sort of cancerous cells. The breast cancerous cells are classified as Benign (B) or Malignant (M). In this paper various ML (Machine Learning) models are applied for classification and prediction of breast cancers. Comparision of various classifiers like Support Vector Machine classifier (SVM), Random Forest classifier (RF) and Naive Bayes classifier (NB) are used. In this paper the performance of three different models are analysed on breast cancer diagnosis using AI model classifiers.

Keywords: Breast Cancer, ML (Machine Learning), Artificial Intelligence (AI), Naive Bayes (NB), Random Forest (RF), Support Vector Machine (SVM).

108. PREDICTION AND VISUALIZATION OF MISSING DATA BY USING DATA ANALYTICS

Sathya Priya S
Dept of Computer Science and Engineering Hindustan Institute of Technology and Science Chennai, India

Sai Prasanna Y
Dept of Computer Science and Engineering Hindustan Institute of Technology and Science, Chennai, India

Sai Sri Harsha M
Dept of Computer Science and Engineering Hindustan Institute of Technology and Science Chennai, India

K Sasi Pavan
Dept. of Computer Science and Engineering, Hindustan Institute of Technology and Science, Chennai, India

Revathy S
Dept. of Computer Science and Engineering Hindustan Institute of Technology and Science Chennai, India

This project’s main objective is to deal with the data loss in a database. As it is known, data is the most valuable thing for every organization. Loss of data or improper entry of data leads to improper databases, which results in making no use of maintaining such databases. So, the aim to create the user-friendly databases which are much more efficient to store and retrieve the data along with data prediction, interpretation or data visualization. This project involves machine learning, data analytics and database management. Machine learning algorithms such as random forests, support vector machine are used to predict the lost data and linear regression, logistic regression are used to visualize the data to the user in an understandable manner. Database management is used to create and store the data efficiently. Here, oracle database is taken into consideration for work and it is chosen it because it is one of the popular databases around the world and it is easy for the user to maintain. Data analytics can be performed using python and any missing values in the database can be predicted by analyzing the past trends. This can be used to predict salaries of the employees, stock price prediction etc.
Index Terms-- Database, Data Loss, Data Prediction, Data visualization, Linear Regression, Random Forests.

109. SMART HEAD BAND FOR STROKE PATIENTS

Deepak.J.F
Department of Biomedical Engineering Student of Jerusalem College of Engineering Chennai

Divya.P.S
Department of Biomedical Engineering Student of Jerusalem College of Engineering Chennai

Malini.S.S
Department of Biomedical Engineering Student of Jerusalem College of Engineering Chennai

Muzhumathi
Department of Biomedical Engineering Student of Jerusalem College of Engineering Chennai

The main objective of this project work is to determine the oxygen saturation level in the cerebrum. Smart head band based on infra-red used during the preoperative period of cardiovascular operations and on stroke patients. It is a non-invasive technology that can monitor the regional oxygen saturation of the frontal cortex. This proposed method helps us to monitor health status of the patient’s oxygen saturation level especially for stroke and cardiac patients. It provides continuous information about brain oxygenation. This review focuses on the clinical validity and applicability of this monitor for cardiac surgical patients. This method is designed as a wearable device in the form of Head band.

Keywords-Oxygen saturation; Arduino; Noninvasive System; Stroke and cardiac patient

110. AI BASED TEAM SELECTION FOR INDUSTRIAL PROJECT

Ranjith Kumar G
Dept. of Computer Science and Engineering
Hindustan Institute of Technology and Science
Chennai, India

Dr. SV. Shri Bharathi
Dept. of Computer Science and Engineering
Hindustan Institute of Technology and Science
Chennai, India

M. Devi Keerthi Reddy
Dept. of Computer Science and Engineering
Hindustan Institute of Technology and Science
Chennai, India

Dr. Angelina Geetha
Dept. of Computer Science and Engineering
Hindustan Institute of Technology and Science
Chennai, India

Anurag Pandey
Dept. of Computer Science and Engineering
Hindustan Institute of Technology and Science
Chennai, India
A Company makes thousands of new clients every day and receives hundreds of projects. The project which is being delivered must be of high quality, on time and within budget. To deliver a high-quality project company needs a team of employees who are skilled in particular technology which the project is demanding. There are hundreds of technologies and development environments available, and expertise in technology varies from employee to employee. Many companies first take an employee into the team and ask them to learn and parallel work on a project. This method of team selection is quite expensive takes more time and at some point quality of the project is compromised to attain the deadline. The proposed system “Artificial Intelligence Based Team Selection” will be very helpful to choose employees as per the expertise in technology required by the project. The system will keep account of the performance of the employee based on the certification he has completed, hackathon participations, a project undertaken, technology known, interest, etc. When the project arrives project manager just has to enter the nature of the project after which the system will use the power of Artificial Intelligence to search and will suggest a team, also capable of recommending other potential employees for the project.

Keywords— Employee Expertise, Artificial Intelligence System, Recommender Systems, Industrial Project, Employee Team Selection

111. EMOTION BASED MUSIC PLAYER

Palampalli Tejeshwer Reddy
Department of Computer Science and engineering,
SRM Institute of Science and Technology,
Chennai, India

K.Dheeraj
Department of Computer Science and engineering,
SRM Institute of Science and Technology,
Chennai, India

Dr.B.Arthi
Associate Professor,
Department of Computer Science and engineering,
SRM Institute of Science and Technology,
Chennai, India

Music has reliably been a traditional press considering the way that it can extricate up our squeezing component of life. In any case, the intriguing to an individual could move under his/her different emotions. For example, the supported in a desolate mode is possibly interesting according to that in a happy manner. In this manner, effectively tending to the human sense concealed in can associate the customer feeling to. To zero in on this issue, Recovery Data (MIR) were proposed for seeing melodic inclination. Beforehand, but a couple of examinations have been made on feeling affirmation, their ampleness isn't pleasant. A potential clarification is that the sound features eliminated are not sufficiently able to isolate the assortment among and feeling. Along these lines, in this paper, we propose a fruitful affirmation strategy, which merges Deep Learning (DL), Machine Learning (ML) and Convolutional Neural Organizations (CNN). The critical differentiation between the proposed method and standard sound based examinations is that the proposed methodology adds up to the midway affirmation outcomes of to achieve the better affirmation precision. The preliminary outcomes on a certified data set of CAL500 show that the proposed system acts in a manner that is superior to some other sound based inclination checking procedures.

112. DESIGN AND OPTIMIZATION OF MICROSTRIP PATCH ANTENNA WITH POLYGONAL SLOT FOR WIDEBAND APPLICATIONS
Gayathri R 1  
Assistant Professor, Dept. of ECE, Bannari Amman Institute of Technology, Sathyamangalam, India.

Sreeja S2  
UG scholar, Dept. of ECE, Bannari Amman Institute of Technology, Sathyamangalam, India.

Swetha T 3  
UG scholar, Dept. of ECE, Bannari Amman Institute of Technology, Sathyamangalam, India.

Shanmugha Priya P R 4  
UG scholar, Dept. of ECE, Bannari Amman Institute of Technology, Sathyamangalam, India.

A microstrip patch antenna for wideband applications is proposed in this paper. Two slots are introduced on the patch of the base antenna to study the antenna parameters, in terms of bandwidth, gain and directivity for analysis. The proposed antennas are suitable for wireless wideband applications roughly between frequency ranges of 6 GHz to 16 GHz approximately. Antenna is showing good return losses, high bandwidth of approximately about 10 GHz, peak gain and directivity of approximately 4 dB. The microstrip antenna structures are configured on FR4 epoxy substrate. The configurations are simulated and analyzed using ADS software. This study would be helpful in the designing of compact microstrip antennas with enhanced bandwidth for various purposes in the field of wireless communications in general and various earth science applications in particular at super high microwave frequency.  
Keyword- microstrip patch, substrate, return loss.

113. MOVIE GENRE PREDICTION FROM TWITTER DATA USING MACHINE LEARNING

Praveen Sundra Kumar N  
Assistant Professor  
Department of Information Technology  
Dr. Mahalingam College of Engineering and Technology  
Pollachi, India

Ashwinth D, Meiarasan K S, Yuvan Karthik K  
UG Scholar, Department of IT  
Dr. Mahalingam College of Engineering and Technology  
Pollachi, India

We are in digital era where the TV shows, advertisement, movies via different social media platforms are increasing day by day. Reviews in social media decide the nature of the shows, movies and advertisement. Sentimental analysis is done using machine learning on twitter data. We are taking it a step further and predicting the genre of the shows, movies and advertisement using the tweets based on it. A key component is utilized to interface together the extricated data to frame new realities or new theories to be investigated further by more customary method for experimentation. Online reviews are valuable for the people in helping them make decisions. There are several challenges in Sentiment analysis. Recently, Machine learning has emerged as an effective means for solving sentiment classification problems. We proposed a supervised machine learning framework with sentiment classification to predict the genre of the movies and advertisement. Experimental results show the more accuracy compared to previous one. To this end, different opinion mining techniques have been proposed, where judging a review sentence’s orientation (e.g., positive or negative) is one of their key challenges.  
Keywords: Digital Media, Sentimental Analysis, Machine Learning, Supervised Learning.
114. AN INTEGRATED SCIENCE AND TECHNOLOGY DRIVEN CRISIS MANAGEMENT STUDY OF THE NOVEL INVADER - SARS-COV2

Nithyaa A N1
Assistant Professor (SG)  Department of Biomedical Engineering, Rajalakshmi Engineering College
Chennai, India
Geetha Anandhi C2
Postgraduate Scholar  Department of Biomedical Engineering, Rajalakshmi Engineering College
Chennai, India
Vigneshwari N3
Assistant Professor  Department of Biomedical Engineering, Kalasalingam Academy of Research and Education, Virudunagar, India

In December 2019, unique virus infection, which was initially called 'Novel Corona virus 2019-nCoV' and later renamed to severe acute respiratory syndrome corona virus 2 (SARS-CoV-2). It was developed in Wuhan, Hubei Province, China, and quickly spread to different pieces of China and different nations around the globe. As of April 28, 2020, COVID-19 has been perceived in 210 nations and territories. Contamination control measures are important to keep the infection from further spreading and to help control the pestilence circumstance. With the assistance of fast broadcast communications frameworks and telemedicine advancements for the conveyance, monitoring and the management of medical services have gotten opportune with incredible possibilities to shield wellbeing labourers from direct contact with COVID-19 patients. In dental settings, the danger of COVID-19's cross contamination is high among patients and dental specialists. In order to free the rooms for COVID-19 patients, Robot assisted surgery (RAS) may assist with decreasing clinic remain for patients that critically need complex-oncological-medical procedure. In contrast with open or regular laparoscopic medical procedure, RAS conceivably diminishes not only contamination and also to reduce the clinical manpower for both normal and COVID-19 patient management. This paper examines the nosocomial contamination in dental settings and gives prescribed administration protocols to dental specialists in virus influenced territories and also to analyse an utilization of telemedicine and related advancements as appropriate systems for controlling the spread of COVID-19. This article will also unite the data about Robot assisted medical procedure, behavioural science for battling the COVID-19 and Social Media and Emergency Preparedness in Response to SARS-CoV-2.

Keywords: Telemedicine, dental practice management, RAS, Behavioural science and Social media response.

115. SMART SECURITY ATM USING FINGERPRINT AUTHENTICATION

Bala Chandar Raju Lakkamraju
Department Of Computer Science and Engineering
SRM Institute of Science and Technology
Chennai, India

Giri Teja Gollu
Department Of Computer Science and Engineering
SRM Institute of Science and Technology
Chennai, India

Dr. B. Arthi,
Associate Professor,
Department Of Computer Science and Engineering
SRM Institute of Science and Technology
Chennai, India
These days cards like ATM, credit, charge and different cards are utilized for bank exchanges and assume a fundamental part inside the banking area. Automated teller machines (ATM) are notable gadgets ordinarily used by people to hold out a private and business monetary exchanges or banking capacities. These days by basically realizing the number money gets with droned by obscure individual. So to possess got exchange under account holder's information, we utilized unique mark perusers for confirmation; we are having one data set which contains individual of individual personal. In the event that a client contacts the unique finger impression peruser the finger impression is caught, it begins checking with information base if finger impression is co-ordinating. In the event that their finger impression isn't coordinated with an alarm is sent the comparing branch.

Keywords—Biometric ATMs, validation, Rearranging Keypad, security.

116. COLOR CORRECTION OF IMAGES FOR THE COLORBLIND

Nazneen Pendhari1, Miqdad Pardawala2, Taher Pardawala3, Taikum Rampurawala4
1Professor: Dept of Comp Engg, M.H Saboo Siddik Engineering College Mumbai, India
2Student, Scholar: Dept of Comp Engg, M.H. Saboo Siddik Engineering College Mumbai, India
3Student, Scholar: Dept of Comp Engg, M.H. Saboo Siddik Engineering College Mumbai, India
4Student, Scholar: Dept of Comp Engg, M.H. Saboo Siddik Engineering College Mumbai, India

Patients with color perception problems are becoming more common in today's world. The deficiency of cone cells and loss of function leads to a loss of information that was originally required to be transmitted from images. The problem of the saliency of images is still persistent even in the traditional method of correction which was aimed at helping patients distinguish between varied colors. The enhancement of image perceptibility has paved way for various image recoloring methods, for color blind patients.

117. PREDICTING AUTOMOBILE TRIP DURATION USING MACHINE LEARNING

Tanvi Baweja
Dept. of Information Technology Engineering
Amity School of engineering and Technology, Guru Gobind Singh Indraprastha University
New Delhi, India

Predicting automobile trip duration for future trips is a problem as real time traffic data is not available. However, an estimate can be predicted using the information available at hand before the start of the trip. The objectives of this paper are (a) To predict automobile trip duration using such factors like starting location, destination, date and time using various machine learning models and (b) To analyze and compare the performance of these models. Six machine learning models (i) Linear models- OLS, Ridge, Lasso and Elastic Net (ii) Random Forest (iii) Deep Neural Network have been used to predict the trip duration. Three performance metrics- R2 Score, MSE and MAE have been used for comparison of these models. Deep Neural Network gives the lowest MSE, followed by OLS model.

Keywords—Machine Learning, Regression, Random Forest, Deep Neural Network, Trip Duration Prediction, Linear Models.

118. CLIQUE NUMBER AND GIRTH OF THE ROUGH CO-ZERO DIVISOR GRAPH
Proceedings of the 11th International Conference on Science and Innovative Engineering
02nd May 2021, Chennai, India

Dr. B. Praba
Sri Sivasubramaniya Nadar College of Engineering
Chennai, Tamil nadu, India.

M. Logeshwari
Sri Sivasubramaniya Nadar College of Engineering
Chennai, Tamil nadu, India.

In this clause, we obtain clique number and girth of the Rough Co-zero divisor Graph $G(Z^*(J))$ of a Rough semiring $(T, \Delta, \nabla)$ and we prove that the Clique number of $G(Z^*(J))$ is $2^{n-m}3^m-2^m-1$ and the Girth of $G(Z^*(J))$ is 3 using Partition graph $P(Z^*(J))$. Additionally the maximal independent set of $G(Z^*(J))$ using $P(Z^*(J))$ is found. These notions are embellished with well qualified examples.

AMS Classification 05C69, 05B10, 05C07, 05A18
Key Words Clique number, Girth, Independence set, Rough Co-zero divisor graph, Partition graph.

119. COMPUTER-ASSISTED DIAGNOSIS OF DIABETIC RETINOPATHY AND ITS CLASSIFICATION INTO DIFFERENT STAGES

Abhishek Singh
Computer Science and engineering
SRM Institute of Science and Technology
Kattangulathur, Chennai, India

S Poornima
Assistant professor
Department of Computer Science and engineering
SRM Institute of Science and Technology

M Pushpalatha
Professor
Department of Computer Science and engineering
SRM Institute of Science and Technology

Dhruv kukar
Computer Science and engineering
SRM Institute of Science and Technology
Kattangulathur, Chennai, India

Diabetic retinopathy is a diabetes impediment that harms the eyes. It originates in the light-delicate tissue’s blood artery and veins at the rear of the eye. DR detection is an important task which makes use of the retinal images for the early observation and nursing, and can dormantly decrease the possibility of blindness. Retinal photos play a notable part in diabetic retinopathy (DR) for disease identification, illness recognition, and nursing. The recent methodologies are not pleased with sensitivity and specificity. In reality, there are yet other matters to be set on in the recent procedure such as effective performance, correctness, as well as easy identification of the DR disease. The aim of this project is to begin an identification system for the recognition of Diabetic Retinopathy (DR) and its periods using appropriate photo processing and Deep-Learning Techniques. Texture features are extracted from segmented fundus images of retina. The input photographs are collected from Kaggle Datasets. Different features are extracted, and the classifier is trained with different images of all the datasets. The classifier identifies the presence of DR and also its stages like: Normal eyes, Mild DR, Moderate DR, Severe DR, and Proliferative DR.

Keywords: Diabetic Retinopathy, Diabetes.

120. DESIGN AND DEVELOPMENT OF MANUAL SEEDLING TRANSPLANTER
Agriculture is the backbone of Indian economy. About 60-70% population of India depends upon agricultural and allied activities. Grape (vitis vinifera) is one of the important fruit crops grown in India. Grape is the third most widely cultivated fruit after citrus and banana. Also it causes some amount of drudgery to the human labour. Another way of digging the pits for planting of grape plants is by utilizing tractor or power tiller operated saplings transplanters or other heavy machines. Such machines are associated with high initial investment and high operating as well as maintenance costs. So the need was felt to develop a hand tool for digging the pit for plantation of grapes and related crops. The developed manually operated saplings transplanter consisted of arm, main frame, foot rest and digging unit. The digging action was achieved with pressing and screwing action. The screwing and twisting action also helped the saplings transplanter for easy penetration in soil. The developed manually operated saplings transplanter was evaluated for its performance by adopting standard test codes. The results of the performance test showed that the diameter of the pit dug was 9.684 cm, the depth obtained was 9.664 cm, the area covered per hour was found to be 0.0637 ha/hr., the number of pits dug per hour was calculated as 330 and the time required to dig one pit was obtained as 11.23 seconds. Hence, the overall performance of developed manually operated saplings transplanter was found to be satisfactory for digging the pits for plantation of grape vines and it can be successfully used for other horticultural crops also.

121. A NOVEL DEEP LEARNING AIDED CODE SUMMARIZATION USING ABSTRACT SYNTAX TREE

Santhi G 1, Nivedha G 2, Mallemala Srivishnu 2, Nivedha D 2
1 Assistant Professor, Department of Information Technology, Pondicherry Engineering College, Puducherry, India
2 Student, B.Tech, Depart of Information Technology, Pondicherry Engineering College, Puducherry, India

As the role of information and communication technologies gradually increases in our lives it is becoming a big challenge to understand the code written by software developers and making it difficult to perform some analysis. The proposed approach is to leverage the syntactic structure of the source code to capture the context for effective code summarization. With the advent of data-driven techniques, there’s now a growing interest towards leveraging Deep Learning (DL) as a software assurance method to provide trustworthy software systems. In this study, it is examined how to summarize the source code by using Deep Learning mechanisms. To this end, a source code representation method that enables us to perform analysis on the Abstract Syntax Tree (AST) and captures the context of a code snippet results in an effective code summarization is developed. In this proposed solution LSTM (Long Short-Term Memory) and MLP (Multilayer Perceptron) are used for effective representation of source code for code summarization. To make a comprehensive performance evaluation, a public dataset is used that contains a large set of code snippets and their summary.

122. SIMULATION OF WIND - SOLAR HYBRID POWER GENERATION SYSTEM

Sarita R. Chuahan
Dep. of Electrical Engineering
Atharva College of Engineering, Mumbai, India

Aakash Haldankar
Dep. of Electrical Engineering
Atharva College of Engineering, Mumbai, India
There is a pressing need to accelerate the development of advanced clean energy technologies in order to address the global challenges of energy security, climate change and sustainable development. India is the world's fourth largest energy consumer and major of its energy sources, oil and coal are imported in large quantities. To fulfil the rising demand of power, renewable sources are to be used but it has some irregularities. Solar, due to its dependence on sunlight, can produce power only during the day, with a clear sky and no clouds cover. Wind, on the other hand, is very erratic in nature and cannot be depended upon. Due to this complementary intermittent nature of wind and solar, power production can be leveled out throughout the day with a Solar-Wind Hybrid generation. With a hybrid, reliability of the grid is improved by ensuring peak power requirements are met. The aim of this paper is to effectively combine and simulate the two systems. Matlab / Simlink software is used for the simulation.

Keywords—PV array, Wind turbine, PMSG, rectifier, boost converter, inverter.

123. DESIGN OF GRAVITY POWERED LIGHT

Anjali Jawale
Department of Electrical Engineering,
Atharva College Of Engineering, Malad(West), Mumbai, Maharashtra, India

Kaushik Kore
Department of Electrical Engineering,
Atharva College Of Engineering, Malad(West), Mumbai, Maharashtra, India

Pooja Kalyankar
Department of Electrical Engineering,
Atharva College Of Engineering, Malad(West), Mumbai, Maharashtra, India

Vismay Sancheti
Department of Electrical Engineering,
Atharva College Of Engineering, Malad(West), Mumbai, Maharashtra, India

We live in a modern world where we require electricity for mostly everything but there are still areas which have limited or no supply of electricity. Most of the areas are located in mountains where we cannot provide electricity generated from hydroelectric, thermal energy, tidal energy, by grid connectivity as they are situated in very remote places. Those people still depend on kerosene lamps or on fire torches which we consider as obsolete. Also, these kerosene lamps are harmful to health and environment. So the question arises how to provide electricity in such places? You might think of solar or wind energy. But the problem with them is they vary from places to places and with weather conditions. So we’ve to think of a better alternative to get rid of this question and which should also be viable.

Here Gravity comes into picture which is available everywhere and is clean and non-contaminated energy. Gravity light is a light that is powered for some time by a slowly falling object under the influence of gravitational pull. We will use gears assembly for electricity generation. The overall
setup of gravity light can be operated indoors. We will drop down some weight tied to a rope/chain attached with gear assembly from a certain height. The generator is connected to one of the gears, as weight descends, gear rotates, which in turn rotates the generator and will convert mechanical energy into electrical energy. A LED will be connected as a load to the generator. The generated electricity can illuminate the LED till the time weight descends. When the weight hanging on the gear train gets lowered it has to be pulled up manually.

The gravity light requires only a one-time investment and does not require any ongoing maintenance. For the first 4-5 months, the cost of gravity light is about the same as the cost of kerosene used to light a lamp, but after that period, it saves money. By changing height and weight, electricity generated can be changed. Also extra power can be stored in the battery so that it may be helpful in emergency situations. Gravity light is environment friendly and easy to operate. It can solve social issues in rural areas like lack of education facilities due to no power supply.

Keywords: Gravity, gear assembly, electrical energy, better alternative

124. WAVE ENERGY UTILIZATION WITH KINETIC HARVESTERS FOR SHIP PROPULSION

NAME- Param Sharma
Btech Marine Engineering INSTITUTE- IMU MUMBAI

NAME- Aaryan
Btech Marine Engineering INSTITUTE- IMU MUMBAI

AUTHOR 3
NAME- Nikhil Karpate
Btech Marine Engineering INSTITUTE- IMU MUMBAI

Ship emissions are a major contributor to global climate change which puts pressure on environment and humans. Maritime sector is really working hard to achieve zero or negligible pollutant emissions by 2030. Our aim is to make a diesel free propulsion system for the maritime sector. We plan to utilize wave energy onboard ships for electricity generation and further, for ship propulsion. We plan to use water floats which harvest the kinetic energy of the ocean waves with the help of hydraulic pistons. These pistons transmit this actuating motion to highly efficient electric generators accounting for the mechanical energy required by the generator to produce electricity. This electricity generated can be stored or used simultaneously to power the ship machinery and the propulsion motor of the vessel. For ‘cold starting’ of the ship and to ensure smooth sailing in calm seas, provision for auxiliary batteries and emergency batteries can be kept onboard. As waves in an ocean are readily available we literally have an infinite pool of energy which can be harnessed without damaging the environment and reducing, if not eliminating the need of fossil fuels. If we could capture just 0.1% of the ocean’s kinetic energy caused by surface waves we could satisfy the current global energy demand over 5 times. With electric devices onboard this energy can be harnessed with negligible losses and yield the best results. According to a study a wave with a height of 1.2 m and a time period of 10 seconds delivers a power of 35000hp (26000kw) per mile on the coast. The structural differences we are proposing also reduce the rolling phenomena, as the floats will act as stabilizers to the vessel and will also increase the overall beam of the ship. Furthermore, these floats can also be used to minimize the use of ballasting tanks, where the floats themselves act like one. Wave energy power plants usually range from 5- 10 MW. Even 40% of this is more than sufficient to propel large vessels along with other machineries onboard ships.

This venture of ours has ensured to maximize the energy output of this system onboard and minimize all the limitations associated with it.

Keywords: Water floats; Wave energy; actuating motion; Hydraulic pistons; electric generators; electric motors; power per unit length.
125. HEART MONITORING SYSTEM USING IOT

R. Rajesh 1, N. Kalyan 2, K. S V M Narayana Reddy 3
Department of Computer Science and Engineering,
Hindustan Institute of Technology and Science, Chennai, India.

Dr. Sathyalakshmi S
Professor
Computer Science and Engineering
Chennai

In this project we are implementing a heartbeat monitoring and heart attack detection system using the Internet of things. These days we have an increased number of heart diseases including increased risk of heart attacks. The sensor is then interfaced to a microcontroller that allows checking heart rate readings and transmitting them over internet. The user may set the high as well as low levels of heart beat limit. After setting these limits, the system starts monitoring and as soon as patient heart beat goes above a certain limit, the system sends an alert to the controller which then transmits this over the internet and alerts the doctors as well as concerned users. Also, the system alerts for lower heartbeats. Whenever the user logs on for monitoring, the system also displays the live heart rate of the patient. Thus, concerned ones may monitor heart rate as well get an alert of heart attack to the patient immediately from anywhere and the person can be saved on time.

126. DIET SUGGESTION BASED ON DEEP LEARNING AND COMPUTER VISION

Antony K. John, Vaibhav Lodhi, J. Rene Beulah
Department of Computer Science and Engineering, College of Engineering and Technology,
SRM Institute of Science and Technology,
Kattankulathur, Kanchipuram, 603203, Chennai, TN, India

Many people around the world at some point in their life are diagnosed with a chronic disease. Diseases can be classified as chronic when they affect an individual for a large part of their life. These diseases affect the general health of an individual by disrupting important body functions. For example Diabetes disrupts the production of insulin from pancreas, and affects the individual throughout his life. In cases of disease like this a strict diet is required. Such a sudden change in diet is usually hard for some people to manage and maintain for a long time. This paper is about an alternative to manage diet. Since conventional paper-pen calculation can be tedious for calculating nutritional value, a person can rely on computers to do it. Log of all the food consumed by the person is maintained and a suggestion of food he can consume while not exceeding any nutritional value is presented. Similarly based on previously consumed food, the recipient will receive a warning if any nutrient has been excessively taken.

127. SIMULATION OF IMPROVEMENT OF EFFICIENCY AND THERMAL PROPERTIES OF BATTERY PACKS USING PASSIVE BATTERY BALANCING TECHNIQUE IN MATLAB

Adarsh Unnithan
Dept. of Electrical Engineering,
Atharva College of Engineering, Malad (West), Mumbai, Maharashtra, India

Mayuri Malvankar
Dept. of Electrical Engineering,
Atharva College of Engineering, Malad (West), Mumbai, Maharashtra, India

Over the past few decades, there has been a substantial boom in the usage of batteries; specifically, lithium-ion batteries. This can be attributed to their high energy density and efficiency. Batteries promise excellent performance and there is a significant interest in studying battery management systems to improve the energy utilization of the battery without sacrificing flexibility, safety and lifetime of the battery. However, there are some barriers in the implementation of efficient battery usage and cell imbalance is a major concern. Balancing of these cells is a crucial step in improving the life and efficiency of the battery. This process includes either redistributing charges of the strong cells among the weak cells or draining the energy of the strong cells. It is impractical to test developments in battery management systems on physical prototypes of Lithium-ion batteries due to the unstable nature of the batteries. In this paper, a basic MATLAB simulation model which simulates passive shunt resistor balancing of a lithium-ion battery is developed and explored. This method is quite effective for batteries of small capacities.

Keywords- Lithium-ion Battery, Cell balancing, Battery management systems, Passive balancing techniques.

128. MANAGEMENT OF SOLAR WATER PUMPING SYSTEM THROUGH IOT & MACHINE LEARNING

Nishant Jain
Dept. of Electrical Engineering
Atharva College of Engineering, Mumbai, India

Peeyush Kumar
Dept. of Electrical Engineering
Atharva College of Engineering, Mumbai, India

Musharraf Ali Saddriwala
Dept. of Electrical Engineering
Atharva College of Engineering, Mumbai, India

Prof. Pragya Jain
Dept. of Electrical Engineering
Atharva College of Engineering Mumbai, India

Water resources are essential for satisfying human needs, ensuring food production and energy as well as for sustainable development. The main problem in this evolving time is the scarcity of water, and we are lagging behind in having a Smart Storage and Supply System. To overcome this problem, we have used Renewable Energy Source that is Photovoltaic System (PV) using Maximum Power Point Tracker (MPPT) for maximum efficiency. Through MATLAB with actual irradiance data investigates the possibility of efficiency calculation for the designed DC Submersible Pump System with a Photovoltaic (PV) power source. The results of the simulation will be presented in terms of output parameters like total energy generated. Looking at the future scenario with Machine Learning, the demand is predicted by analyzing the previous values and the supply cycle is generated accordingly.
and Internet of Things (IoT) are used for Smart Storage and Supply of Water, respectively. In this paper we present that MPPT can improve efficiency and performance of PV array, Machine learning helps to reduce the water wastage and future demands of water can be estimated and water can be supplied in a smarter and efficient way with the use of Internet of Things (IoT) and Adafruit.

Keywords—PV array, MATLAB, DC Submersible Pumps, Management of Water Supply, Machine Learning, Internet of Things.

129. TRACKING DEVICE FOR DEMENTIA PATIENTS

S. Anitha Jebamani,
Associate Professor,
Sri Sairam Engineering College,
Autonomous Institution,
West Tambaram, Chennai.

V. Pavithra,
UG Scholar,
Sri Sairam Engineering College,
Autonomous Institution,
West Tambaram, Chennai.

S. RAKSHANA,
UG Scholar,
Sri Sairam Engineering College,
Autonomous Institution,
West Tambaram, Chennai.

The wandering of dementia patients that affects elder persons is one among the numerous behavioral issues and largest concern for the caretakers. We’ve developed a network with mobile phones for transmitting the data of a patient’s location. The device consists of a GSM module, Arduino UNO, GPS module. The wandering person’s location is known after they exceed above the certain metre. Once the elder person goes out of the area, the GSM sends the location of wandering elderly person’s with the assistance of GPS. The automated message will inform the caregiver by SMS. The caregiver can monitor the map of the wandering person’s location via the Internet.

130. MACHINE LEARNING BASED BRAIN TUMOR DIAGNOSIS AND STAGE DETECTION

Sai Yaswanth Myneni
Computer Science and Engineering
Hindustan Institute of Technology and Science, Chennai, India

Sai Krishna Rajagopal
Computer Science and Engineering
Hindustan Institute of Technology and Science, Chennai, India

Sriram Chowdary Maddipatla
Computer Science and Engineering
Hindustan Institute of Technology and Science, Chennai, India

Maddipatla Sriram Chowdary
Computer Science and Engineering
Hindustan Institute of Technology and Science, Chennai, India
A tumor is defined as a swelling or morbid enlargement that results from an overabundance of cell growth and division to produce new cells in an uncontrolled and unordered manner whereas brain tumor abnormal growth of cells in the brain. A magnetic resonance image is used to capture the image brain with the help of an MRI Scan which uses a large magnet, radio waves, and a computer to create this detailed image. In medical fields, MRI segmentation is very important because it extracts the necessary area from the image. In general, there is no one-size-fits-all solution to image segmentation. Doctors perform tumour segmentation from MRI data, which is an important but time-consuming manual process. This paper focuses on a new approach to segment the brain tumor of MRI image by NAÏVE BAYES classifier method, because of its quick prediction capabilities. The MATLAB output will be displayed in pc and also see the output to the embedded system using wired communication. Keywords: Magnetic Resonance Imaging, Support Vector Machine, Naïve Bayes Classifier, Multi-SVM classifier, Random Forest, Anisotropic Diffusion, Canny Algorithm, Morphological Algorithm

131. LORA BASED FLAW LOCATION DETECTION IN HT LINE USING GSM

SENTHILKUMAR.M,
ASSISTANT PROFESSOR- EEE,
SRI KRISHNA COLLEGE OF ENGINEERING AND TECHNOLOGY, COIMBATORE,

ABISHECK.D,
FINAL YEAR- EEE,
SRI KRISHNA COLLEGE OF ENGINEERING AND TECHNOLOGY, COIMBATORE,

GNANA PRAKASH.K,
FINAL YEAR- EEE,
SRI KRISHNA COLLEGE OF ENGINEERING AND TECHNOLOGY, COIMBATORE,

HARI BABU.S,
FINAL YEAR- EEE,
SRI KRISHNA COLLEGE OF ENGINEERING AND TECHNOLOGY, COIMBATORE,

HARIHARAN.R,
FINAL YEAR- EEE,
SRI KRISHNA COLLEGE OF ENGINEERING AND TECHNOLOGY, COIMBATORE,

In an electric power system having different interacting elements, there exists the possibility of disturbances and faults at all times. HT lines are more susceptible to faults as they are exposed to atmosphere and these faults have to be detected and cleared as fast as possible to ensure the system reliability. The framework imperfection is naturally recognized and afterward convey the information, for example, distance and address of the pole to the control room. The GSM network gives solid correspondence quality cross country inclusion. Message system has now suit the most broadly utilized help dependent on GSM standard. Simultaneously the diminishing expense of GSM gadgets, for example, cell phones and the GSM SMS gives a remarkable location to the controller unit and orders can be sent in the remote correspondence organization.

There are numerous courses of deficiencies in power transmission prompting blackouts, if not appropriately oversaw.

132. ROBOTIC SPIDER GLOVE
Arm rehabilitation activities require continuous monitoring process in order to provide information on rehabilitation results to be analyzed by therapist. The purpose of monitoring is to help them to improve and customize the rehabilitation process. Moreover, a portable and simple home-based rehabilitation device can help patients to improve daily rehabilitation activity. Some previous studies regarding home-based rehabilitation process have shown improvement promoting human movement recovery. But existing rehabilitation devices are expensive and need to be supervised by a physical therapist, which are complicated to be used at home. Some devices are not so efficient to be used at home due to the large size and complex system. In this current work, flex sensor, force sensitive resistors and accelerometer were assessed in order to be implemented as a sensory unit for a portable arm rehabilitation device. The analog signal from the sensors will be conveyed to an Arduino microcontroller for data processing and logging. The device is equipped with online or portable data logging capabilities which can store daily activity results.

Keywords—rehabilitation, therapist, monitoring, recovery.

133. DESIGN OF ENERGY MANAGEMENT SYSTEM WITH PLANT AUTOMATION AND CAVITATION MONITORING IN CHEMICAL PROCESS INDUSTRY

Gopinath R
School of Electrical Engineering
Vellore Institute of Technology, Vellore, India

Arun Kumar K R
School of Electrical Engineering
Vellore Institute of Technology, Vellore, India

Ezhil Subbia K
Associate Engineer,
Smart Facility Group, Samsung India Electronics Private Limited

Dhilly Ganesh D
Graduate Engineer Trainee
Software Team –BSNA, Johnson Controls, India

Programmable Logic Controller based industrial solution for energy management and process automation for chemical industry with ratio controls is proposed. The energy management is done by two algorithms namely Energy Efficiency Algorithm and Load Sharing Algorithm. Many pumps run in no load or reliably low load condition, just to prevent overloading. Using the energy efficiency algorithm, No load running of pumps can be monitored and turned off after a time delay. Each machine has its own finite running life, In Industry to have high reliability stand-by machines are also installed but not utilized effectively. The load sharing algorithm schedules equal running hours to stand-by and main pumps. The process control is achieved by utilizing the feedbacks of transducers like flow; pressure and temperature sensors to the system, the signals are sent to controller and the
controller process the signals and actuate the necessary relays to operate the process. The complete system is centralized & controlled through a SCADA system.

Keywords:
Energy saving; Load sharing; Process control; SCADA monitoring; Cavitation and Flashing.

134. AUTOMATED DETECTION OF BRAIN TUMOR MRI IMAGES USING DEEP LEARNING TECHNIQUES

Lakshmi Prabha. P
Assistant Professor
Biomedical Engineering
SRM Institute of Science and Technology, Chennai, Tamil Nadu

Nirupama. C H
Biomedical Engineering
SRM Institute of Science and Technology, Chennai, Tamil Nadu

Sai Nikhil Reddy. B
Biomedical Engineering
SRM Institute of Science and Technology, Chennai, Tamil Nadu

Gagan Ranjith. T
Biomedical Engineering
SRM Institute of Science and Technology, Chennai, Tamil Nadu

Tumor cells are a type of cell that grows outside of the normal forces that regulate development. Consistently, brain tumors are one of the main sources of death in people. Each year, approximately 6 lakh people in India are diagnosed with a brain tumor. Most common effect way to diagnose tumor is Magnetic Resonance Imaging (MRI). There are two types of tumors, Malignant(cancerous) and, Benign(noncancerous). Thus, the aim of our work is to automatically detect brain tumor MRI images using deep learning techniques. The image was pre-processed, and a filter operation was used to eliminate as much unnecessary noise as possible to aid better segmentation. The wavelet transform used a discrete model & principal component analysis, which will extract features. Comparison of machine learning algorithm with deep learning, which is done by using CNN(UNet).

Keywords— Brain tumor, Segmentation, CNN classification, k-means.

135. DETECTING OF MAJOR OR MINOR IN RESTRICTED AREAS USING DEEP LEARNING

D Meghana Reddy1, Rajakumar Arul2
Department of Computer Science & Engineering, Amrita School of Engineering, Bengaluru
Amrita Vishwa Vidyapeetham, India

We can estimate an individual age by using Deep Learning Techniques. Sometimes we need to restrict an individual from different areas. We can check whether the person is teenage or adult for driving license. We can track the prevention of purchase of alcohol and tobacco. Many times teenagers want to use the facilities which are only available for the adults, we can prevent those illegal crimes from the deep learning techniques. We can restrict people entry to the restricted areas. The main challenge of this paper is time to time people changes in their Physical changes that arise with age are complicated and different. estimation. In his paper we are using a new deep learning method, called Lavenberg Marquardt, to learn inter - class similarity and features extraction We suggest that a class's representation is identical to or closer to the class's mean feature, which may assist in the learning of unique representations. In this implemented methodology we can use to check the face of
the person whether it is image of adult or not. Test is carried on the dataset and the results show that
the proposed method improves the performance of current algorithms in terms of classification
accuracy.

Keywords — Adult Prediction, Face Analysis, Lavenberg Marquardt

136. SMART DRIVER ASSISTANT USING ROAD SIGN RECOGNITION

VEERAYOGHEASHWAR
Hindustan Institute of Technology and Science, Chennai

PRASANTH RAJ
Hindustan Institute of Technology and Science, Chennai

DR.R.KRISHNAVENI
Hindustan Institute of Technology and Science, Chennai

Traffic sign recognition system (TSRS) is a significant portion of intelligent transportation system
(ITS). Being able to identify traffic signs accurately and effectively can improve the driving safety.
This paper brings forward a traffic sign recognition technique on the strength of deep learning, which
mainly aims at the detection and classification of circular signs. Firstly, an image is preprocessed to
highlight important information. Secondly, Hough Transform is used for detecting and locating areas.
Finally, the detected road traffic signs are classified based on deep learning. In this article, a traffic
sign detection and identification method on account of the image processing is proposed, which is
combined with convolutional neural network (CNN) to sort traffic signs. On account of its high
recognition rate, CNN can be used to realize various computer vision tasks. TensorFlow is used to
implement CNN. In the German data sets, we are able to identify the circular symbol with more than
98.2% accuracy.

Keywords—traffic sign recognition, traffic sign detection, deep learning, convolutional neural networ

137. ENHANCING THE GROWTH OF LACTOBACILLUS SPECIES AND
NUTRITIONAL PROFILE IN VARIOUS CURD SOURCES

SUDHA A
BANNARI AMMAN INSTITUTE OF TECHNOLOGY, Sathyamangalam

MUTHUSELVIS
BANNARI AMMAN INSTITUTE OF TECHNOLOGY, Sathyamangalam

Milk is the essential source of nutrition for mammals before they are able to digest other types of
food. To explore and analyse the growth of lactobacillus species CFU in various milk sources like
cow milk, goat milk, buffalo milk and coconut milk. Coconut curd is very traditional and there is no
research about coconut curd till now. The nutritional profile was checked for lactobacillus species that
found higher amount in milk sources. The identification of factor that influence the growth of
lactobacillus species were analysed. the parameter used to monitor the quality of curd sample were
typical chemical, physical and microbiological. from the result of all parameter the result shows that
curd prepared from different milk sources were gram positive lactobacillus species. The growth
profile of bacteria in all curd sample were checked and found it was similar in coconut source. The
incubation time is less (3hrs) in case of coconut curd compare to other sources (4 to 6 hrs).

138. A DATA-DRIVEN DETECTION OF SENSITIVITY IN PERSONAL DATA
Within the age of the internet and immense data, oversized data volumes like medical data, business data, or government service data, is generated each second. To protect collected personal data, current protection laws and regulations sometimes request organisations that accumulate and use personal data to adopt reasonable security safeguards. Throughout this case, organisations use the approach of risk assessment of their personal data to specify security controls. This paper proposes a data-driven risk assessment approach for personal data protection. In this projected approach, a corporation or an organisation will use a neural network to model flows of collected personal data using flow diagrams. To recognise personal data assortment and usage, the organisation will establish elements accustomed to method, store, and transmit data. The pre-trained neural network model will be used to verify whether the sentence contains any personal data. Compared to a process-oriented risk assessment approach, our approach helps organisations in highlighting risks to sensitive data that are generally overseen in crucial business processes. Throughout this work, artificial neural network is used to calculate the sensitivity of the processed personal data. Thus, using that calculation to prevent misuse of sensitive personal data.

139. INTELLIGENCE FACE MASK AND BODY TEMPERATURE RECOGNITION SYSTEM

(1Sudha Mercy S, 2Annamalai R, 3Suren Raj P)  
‘1 Assistant Professor CSE department, Jeppiaar Institute of Technology, Sriperumbudur, India’  
‘2 Associate Professor IT department, Jeppiaar Institute of Technology, Sriperumbudur, India’  
‘3 UG student CSE department, Jeppiaar Institute of Technology, Sriperumbudur, India’

In this paper, an automatic face mask and temperature detector is presented. It is designed with an Automatic Face Mask and a body temperature detector to intimate the person to wear mask and check their body temperature without human support. This face mask detector uses artificial network to recognize whether a person is wearing face mask or not. It can be connected to an alarm buzzer in the entrance of offices, airports, malls, shops and hotels. A surveillance camera is attached with it to monitor the peoples who enters through it. If a person enters without wearing mask it will automatically alarms with buzzer and indicates the shopkeeper to intimate the person to wear mask using image recognition. It also designed with an automatic body temperature detector; it can be fixed along with the face mask detector together in the entrance of the shop etc. Whenever a customer enters the shop, a sensor is placed in the entrance door. Once they crossed through it, sensor check their body temperature and display it. If the person with more temperature(fever), it will alarm the shopkeeper. It all works without human support.

140. HEART DISEASE PREDICTION USING MACHINE LEARNING TECHNIQUES
Globally many of them suffering from heart disease and it are more complex in nature. This holds a higher rate in worldwide death ratio. Once the symptoms are not taken as severe, it will bring severe consequence in a short period. Mental stress over a person can lead to heart disease. Identifying heart disease at the time of symptoms are recorded is the only way to treat and cure disease. Researches carried out over it to provide reliable solution and accuracy by using data mining and machine learning. In this paper, effective method to find out disease affected persons is proposed. The proposed method regarding logistic regression, support vector machine (SVM), Random forest and K-nearest neighboring (KNN) algorithm is presented. The main reason for choosing these algorithms is increasing accuracy upon classification and minimizing time required for classification. Health care industries possess day-to-day data of patients with various diseases. From that, required data is collected for analysis. The measurement of performance is based on factors chosen for classification. Experimental analysis carried out with respect to input database taken from UCI; number of patients with heart disease is pointed out.

Keywords: Heart Disease; Logistic Regression, Support Vector Machine (SVM); K-Nearest Neighboring (KNN); UCI

141. ENHANCED PERFORMANCE OF TIN HALIDE PEROVSKITE SOLAR CELL MODEL USING SCAPS-1D

USHA MANDADAPU*1
1Assistant Professor, Department of Physics, Pune Institute of Compute Technology, (Maharastra), INDIA

S. Victor Vedanayakam
2Assistant Professor, Department of Physics, MITS,(AndhraPradesh), INDIA

As of now exhibiting solar energy to the electrical energy conversion performance of more than 20%, perovskite based photovoltaic’s are the emerging trend to produce clean and cheap energy. However the toxicity issue of most used lead perovskite material is the main challenge to use effectively as an absorber layer. A good alternative for the lead is tin, which is also a transition metal and having good semi conducting behavior. CH3NH3SnI3 based perovskite solar cell is simulated using the software tool for the numerical simulation of thin film photovoltaic’s. Glass/ITO/TiO2/ CH3NH3SnI3/SpiroOMETAD/Ag, architecture is optimized to achieve the high efficiency. The performance influencing parameters such as absorber thickness, defect concentrations and the operating temperature are optimized. The predicted photovoltaic parameters by the simulation process are Jsc is 25.41 mA/cm2 , Voc is 1.29V, fill factor is 78.71% and efficiency is 25.75%.

Keywords: Tin Halide Perovskite, absorber, optimized, defect, temperature.

142. ENHANCED DATA PRIVACY PRESERVATION MODEL FOR MOBILE CROWD SENSING SYSTEM USING BLOCKCHAIN TECHNOLOGY

M.Aruulprakash1 and R.Jebakumar2
1 Assistant Professor, Department of CSE, SRM Institute of science and technology, Kattankulathur
2 Associate Professor, Department of CSE, SRM Institute of science and technology, Kattankulathur

Abstract. With the recent advancement in computing and sensing capabilities of smart terminals, mobile crowdsensing systems built on smart and ubiquitous mobile terminals have become one of the rising applications allowing a better sensing and scalable systems. However, the prior mobile
crowdsensing systems mostly employs centralized architecture, which are subject to low reliability and are vulnerable to malicious attacks. Furthermore, it is difficult to guarantee the privacy with the transparency of MCS systems. These factors have been a major hindrance to the growth of MCS applications. Hence it is imperative to ensure security and privacy of such systems in order to meet the wide spectrum of its’ applications. So we propose a decentralized blockchain crowdsensing system to harness the benefits of this sensing paradigm. We plan to integrate blockchain technology into the crowdsensing system. Meanwhile, we also focus on how to protect data privacy in blockchains to develop an accountable MCS system. By leveraging these technologies, we believe that MCS system will have a good performance in privacy protection and security enhancement.

143. CONVECTION HEAT TRANSFER OVER FIVE HEATED BLOCKS IN A HORIZONTAL CHANNEL WITH AND WITHOUT LONG BAFFLES

H. AMIRAT, and A. KORICHI
University of Medea, Laboratory of Mechanics, Physics and Mathematical Modeling (LMP2M), Medea, Algeria,

Abstract—A numerical analysis of forced convection heat transfer in a horizontal channel contains five heated blocks are performed. A Long baffle is fixed on the upper wall above each heated block. The air (Pr=0.71) is used as cooling media, and the thermal physical property are considered constant; the baffles’ width, length, and position are considered as constant. The mathematical formulations of the physical phenomena are solved numerically using the finite volume method with Ansys Fluent © software. The calculations are run in a time-varying regime to prevent unrealistic results. Both configurations with and without baffles are compared to show the effect of the baffles on the heat transfer and fluid flow behavior. The results demonstrate that the long baffles change the fluid flow structure and improve the heat transfer over the heated blocks.

Key words: Electronic cooling, Finite volume method, heated blocks, heat transfer enhancement.

144. POWER QUALITY IMPROVEMENT IN DVR AND DSTATCOM USING MULTILEVEL INVERTER WITH LESS NUMBER OF SWITCHES

Dr.K Prasada Rao
Department of EEE
Malla Reddy Engineering College, Secunderabad, India

This paper proposes a MPPT based PV connected DVR and DSTATCOM using multilevel inverter with reduced number of switches. To reduce the power disturbances and to advance the quality of the power, custom power devices are need to be proposed. The main objectives of these custom power devices are to ensure good voltage regulation, reducing harmonic distortion and reactive power compensation. Sag and swell compensation in distribution is done by DVR, and harmonics reduction due to non linear load and reactive power compensation is done by Dstatcom. The multilevel inverter used will reduce switching losses and increases power rating of both devices. MPPT based PV will maintain constant voltage across DC side of the multilevel inverter.

Keywords-DVR, DSTATCOM, Multilevel inverter, THD, Reactive Power, MPPT, PV, DC-DC inverter.
# 11th INTERNATIONAL CONFERENCE ON SCIENCE & INNOVATIVE ENGINEERING (ICSIE 2021)

## LIST OF PARTICIPATING ORGANIZATIONS

<table>
<thead>
<tr>
<th>S.NO</th>
<th>INSTITUTION/ORGANISATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>UNIVERSITY OF MEDEA, ALGERIA</td>
</tr>
<tr>
<td>2</td>
<td>UNIVERSITY OF THE CUMBERLAND, USA</td>
</tr>
<tr>
<td>3</td>
<td>JAZAN UNIVERSITY, KINGDOM OF SAUDI ARABI</td>
</tr>
<tr>
<td>4</td>
<td>AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY VINAYAKA MISSION RESEARCH FOUNDATION, CHENNAI</td>
</tr>
<tr>
<td>5</td>
<td>ADITYA ENGINEERING COLLEGE, AP</td>
</tr>
<tr>
<td>6</td>
<td>AMITY SCHOOL OF ENGINEERING AND TECHNOLOGY, NEW DELHI</td>
</tr>
<tr>
<td>7</td>
<td>AMITY UNIVERSITY, NOIDA</td>
</tr>
<tr>
<td>8</td>
<td>AMRITA SCHOOL OF ENGINEERING, BANGALORE</td>
</tr>
<tr>
<td>9</td>
<td>ATHARVA COLLEGE OF ENGINEERING, MUMBAI</td>
</tr>
<tr>
<td>10</td>
<td>BANNARI AMMAN INSTITUTE OF TECHNOLOGY, SATHYAMANGALAM</td>
</tr>
<tr>
<td>11</td>
<td>C. ABDUL HAKEEM COLLEGE OF ENGINEERING &amp; TECHNOLOGY, VELLORE</td>
</tr>
<tr>
<td>12</td>
<td>CHENNAI INSTITUTE OF TECHNOLOGY, CHENNAI</td>
</tr>
<tr>
<td>13</td>
<td>CSI INSTITUTE OF TECHNOLOGY, THOVALAI</td>
</tr>
<tr>
<td>14</td>
<td>DR. MAHALINGAM COLLEGE OF ENGINEERING AND TECHNOLOGY, POLLACHI</td>
</tr>
<tr>
<td>15</td>
<td>FEAT, ANNAMALAI UNIVERSITY</td>
</tr>
<tr>
<td>16</td>
<td>GOVERNMENT COLLEGE OF TECHNOLOGY, COIMBATORE</td>
</tr>
<tr>
<td>17</td>
<td>ANNA ADARSH COLLEGE FOR WOMEN, CHENNAI</td>
</tr>
<tr>
<td>18</td>
<td>HINDUSTAN INSTITUTE OF TECHNOLOGY AND SCIENCE, CHENNAI</td>
</tr>
<tr>
<td>19</td>
<td>INDIAN MARITIME UNIVERSITY, MUMBAI PORT CAMPUS</td>
</tr>
<tr>
<td>20</td>
<td>JEPPIAAR INSTITUTE OF TECHNOLOGY, CHENNAI</td>
</tr>
<tr>
<td>21</td>
<td>JERUSALEM COLLEGE OF ENGINEERING, CHENNAI</td>
</tr>
<tr>
<td>22</td>
<td>JOHNSON CONTROLS, INDIA</td>
</tr>
<tr>
<td>23</td>
<td>K.S. RANGASAMY COLLEGE OF TECHNOLOGY, TIRUCHENGODE</td>
</tr>
<tr>
<td>24</td>
<td>KALASALINGAM ACADEMY OF RESEARCH AND EDUCATION, COIMBATORE</td>
</tr>
<tr>
<td>25</td>
<td>KCG COLLEGE OF TECHNOLOGY, CHENNAI</td>
</tr>
<tr>
<td>26</td>
<td>KONGUNADU ARTS AND SCIENCE COLLEGE, COIMBATORE</td>
</tr>
<tr>
<td>27</td>
<td>KPR INSTITUTE OF ENGINEERING AND TECHNOLOGY, COIMBATORE</td>
</tr>
<tr>
<td>28</td>
<td>LINCOLN UNIVERSITY COLLEGE, MALAYSIA</td>
</tr>
<tr>
<td>29</td>
<td>M.H SABOO SIDDIK COLLEGE OF ENGINEERING, MUMBAI</td>
</tr>
<tr>
<td>30</td>
<td>M.KUMARASAMY COLLEGE OF ENGINEERING, THALAVAPALAYAM</td>
</tr>
<tr>
<td>31</td>
<td>MALLA REDDY ENGINEERING COLLEGE, SECUNDERABAD</td>
</tr>
<tr>
<td>32</td>
<td>MEPCO SCHLENK ENGINEERING COLLEGE, SIVAKASI</td>
</tr>
<tr>
<td>33</td>
<td>MINISTRY OF COMMUNICATIONS, GOVT. OF INDIA</td>
</tr>
<tr>
<td>34</td>
<td>MITS,(ANDHRA PRADESH)</td>
</tr>
<tr>
<td>35</td>
<td>N.B.K.R INSTITUTE OF SCIENCE &amp; TECHNOLOGY, AP</td>
</tr>
<tr>
<td>36</td>
<td>OSMANIA UNIVERSITY, HYDERABAD</td>
</tr>
<tr>
<td>37</td>
<td>PANIMALAR ENGINEERING COLLEGE, CHENNAI</td>
</tr>
<tr>
<td>38</td>
<td>PANIMALAR INSTITUTE OF TECHNOLOGY, CHENNAI</td>
</tr>
<tr>
<td>S.NO</td>
<td>INSTITUTION/ORGANISATION</td>
</tr>
<tr>
<td>------</td>
<td>-------------------------------------------------------------</td>
</tr>
<tr>
<td>39</td>
<td>PONDICHERRY ENGINEERING COLLEGE, PUDUCHERRY</td>
</tr>
<tr>
<td>40</td>
<td>KONGUNADU ARTS AND SCIENCE COLLEGE, COIMBATORE</td>
</tr>
<tr>
<td>41</td>
<td>PSG COLLEGE OF ARTS &amp; SCIENCE, COIMBATORE</td>
</tr>
<tr>
<td>42</td>
<td>PUNE INSTITUTE OF COMPUTE TECHNOLOGY, PUNE</td>
</tr>
<tr>
<td>43</td>
<td>RAJALAKSHMI ENGINEERING COLLEGE, CHENNAI</td>
</tr>
<tr>
<td>44</td>
<td>RAMCO INSTITUTE OF TECHNOLOGY, RAJAPALAYAM</td>
</tr>
<tr>
<td>45</td>
<td>SAMSUNG INDIA ELECTRONICS PRIVATE LIMITED, INDIA</td>
</tr>
<tr>
<td>46</td>
<td>SATHYABAMA INSTITUTE OF SCIENCE AND TECHNOLOGY, CHENNAI</td>
</tr>
<tr>
<td>47</td>
<td>SCSVMV, KANCHIPURAM</td>
</tr>
<tr>
<td>48</td>
<td>SONA COLLEGE OF TECHNOLOGY, SALEM</td>
</tr>
<tr>
<td>49</td>
<td>SRI KRISHNA COLLEGE OF ENGINEERING AND TECHNOLOGY, COIMBATORE</td>
</tr>
<tr>
<td>50</td>
<td>SRI RAMAKRISHNA ENGINEERING COLLEGE, COIMBATORE</td>
</tr>
<tr>
<td>51</td>
<td>SRI SAIRAM ENGINEERING COLLEGE, CHENNAI</td>
</tr>
<tr>
<td>52</td>
<td>SRM INSTITUTE OF SCIENCE AND TECHNOLOGY, KATTANKULATHUR</td>
</tr>
<tr>
<td>53</td>
<td>SRM INSTITUTE OF SCIENCE AND TECHNOLOGY, RAMAPURAM</td>
</tr>
<tr>
<td>54</td>
<td>SSN COLLEGE OF ENGINEERING, CHENNAI</td>
</tr>
<tr>
<td>55</td>
<td>ST. JOSEPH’S COLLEGE OF ENGINEERING, CHENNAI</td>
</tr>
<tr>
<td>56</td>
<td>ST.JOSEPH'S INSTITUTE OF TECHNOLOGY, CHENNA</td>
</tr>
<tr>
<td>57</td>
<td>STRAYER UNIVERSITY, USA</td>
</tr>
<tr>
<td>58</td>
<td>THE QUAIDE MILLETH COLLEGE FOR MEN, CHENNAI</td>
</tr>
<tr>
<td>59</td>
<td>TIT, BHOPAL</td>
</tr>
<tr>
<td>60</td>
<td>VARDHAMAN COLLEGE OF ENGINEERING, HYDERABAD</td>
</tr>
<tr>
<td>61</td>
<td>VELAMMAL COLLEGE OF ENGINEERING AND TECHNOLOGY, MADURAI</td>
</tr>
<tr>
<td>62</td>
<td>VELLORE INSTITUTE OF TECHNOLOGY, VELLORE</td>
</tr>
<tr>
<td>63</td>
<td>VINAYAKA MISSION’S KIRUPANANDA VARIYAR ENGINEERING COLLEGE, SALEM</td>
</tr>
<tr>
<td>64</td>
<td>VIT BHOPAL UNIVERSITY, INDIA</td>
</tr>
</tbody>
</table>