





College of Engineering & Technology

Approved by AICTE, Affiliated to Anna University,

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Natham, Dindigul - 624 401. Web: www.nprcet.org

#### **CRITERION 1- CURRICULAR ASPECTS**

#### **1.3 Curriculum Enrichment**

1.3.3 Percentage of students undertaking project work/field work/internship (Data for the latest completed academic year 2022-2023).

Program name	Program Code	List of students undertaking project work/ field work/Internship	Page No
B.E.ECE	106	Balaji M	5
B.E.ECE	106	Manoj kumar S	5
B.E.ECE	106	MuthumoorthyM	5
B.E.ECE	106	Tharunkumar M	5
B.E.ECE	106	Kamalesh K	8
B.E.ECE	106	Kirthick N	8
B.E.ECE	106	Mohan S	8
B.E.ECE	106	Prabhu C	8
B.E.ECE	106	Dhath vetha S	12
B.E.ECE	106	Shiny reshma J	12
B.E.ECE	106	Soundharya S	12
B.E.ECE	106	yashica S	12
B.E.ECE	106	Ajith kumar.K	16
B.E.ECE	106	Murugananthan M	16
B.E.ECE	106	Aravinth raj K	16
B.E.ECE	106	Amizhthaa.B	20
B.E.ECE	106	Asma roshan.T	20
B.E.ECE	106	Divya dharshini S	20
B.E.ECE	106	Porkodi S	20
B.E.ECE	106	Nalinashree N	24
B.E.ECE	106	Renuga devi N	24
B.E.ECE	106	Singara brindha N	24
B.E.ECE	106	Tharshitha S	24
B.E.ECE	106	Christia.I	27
B.E.ECE	106	Pavithra.N	27
B.E.ECE	106	Rifaya.S	27
B.E.ECE	106	Vishali.K	27
B.E.ECE	106	Jyothika.B	31
B.E.ECE	106	Karunya J S	31
B.E.ECE	106	Madhumitha P	31
B.E.ECE	106	Powsika devi K	31
B.E.ECE	106	Blessy jebamani G	35
B.E.ECE	106	Devi sri S	35
B.E.ECE	106	Muthu ranjani V	35
B.E.ECE	106	Uma nandhini N	35
B.E.ECE	106	Mythili M	38







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B.E.ECE		Natham, Diff	aigui - 624 401. Web: www.nprcet.org	
B.E.ECE         106         Shabira taj.J         42           B.E.ECE         106         Shabira taj.J         42           B.E.ECE         106         Mohammed asif M         46           B.E.ECE         106         Mohamed Ibrahim J         46           B.E.ECE         106         Naga vishwa A         46           B.E.ECE         106         Ram vignesh.R P         46           B.E.ECE         106         Manoj Kumar A         50           B.E.ECE         106         Mohan babu B         50           B.E.ECE         106         Mohan babu B         50           B.E.ECE         106         Keerthi M         54           B.E.ECE         106         Keerthi M         54           B.E.ECE         106         Keerthi M         54           B.E.ECE         106         Asika Begum N         58           B.E.ECE         106         Abirami S         59           B.E.ECE         106         Abirami S         59           B.E.ECE         106         Abirami S         59           B.E.ECE         106         Durga S         62           B.E.ECE         106         Nadhiya M         63	B.E.ECE	106	Sano Nisha N	38
B.E.ECE         106         Shabira taj.J         42           B.E.ECE         106         Mohammed asif M         46           B.E.ECE         106         Mohamed Ibrahim J         46           B.E.ECE         106         Naga vishwa A         46           B.E.ECE         106         Ram vignesh.R P         46           B.E.ECE         106         Manoj Kumar A         50           B.E.ECE         106         Mohan babu B         50           B.E.ECE         106         Mohan babu B         50           B.E.ECE         106         Keerthi M         54           B.E.ECE         106         Sneha P         54           B.E.ECE         106         Asika Begum N         58           B.E.ECE         106         Abirami S         59           B.E.ECE         106         Abirami S         59           B.E.ECE         106         Babitha J         60           B.E.ECE         106         Dharshini M         61           B.E.ECE         106         Darga S         62           B.E.ECE         106         Nadhiya M         63           B.E.ECE         106         Swathi P         64	B.E.ECE	106	Sumuga Priya M	38
B.E.ECE         106         Mohammed asif M         46           B.E.ECE         106         Mohamed Ibrahim J         46           B.E.ECE         106         Naga vishwa A         46           B.E.ECE         106         Ram vignesh.R P         46           B.E.ECE         106         Manoj Kumar A         50           B.E.ECE         106         Mohan babu B         50           B.E.ECE         106         Venkatesh B         50           B.E.ECE         106         Keerthi M         54           B.E.ECE         106         Keerthi M         54           B.E.ECE         106         Aasika Begum N         58           B.E.ECE         106         Abirami S         59           B.E.ECE         106         Abirami S         59           B.E.ECE         106         Babitha J         60           B.E.ECE         106         Dharshini M         61           B.E.ECE         106         Durga S         62           B.E.ECE         106         Nadhiya M         63           B.E.ECE         106         Nadhiya M         63           B.E.ECE         106         Sudhishree JJ         66 </td <td>B.E.ECE</td> <td>106</td> <td>Sharmila devi.G</td> <td>42</td>	B.E.ECE	106	Sharmila devi.G	42
B.E.ECE         106         Mohamed Ibrahim J         46           B.E.ECE         106         Naga vishwa A         46           B.E.ECE         106         Ram vignesh.R P         46           B.E.ECE         106         Mohan babu B         50           B.E.ECE         106         Mohan babu B         50           B.E.ECE         106         Keerthi M         54           B.E.ECE         106         Keerthi M         54           B.E.ECE         106         Asika Begum N         58           B.E.ECE         106         Abirami S         59           B.E.ECE         106         Abirami S         59           B.E.ECE         106         Babitha J         60           B.E.ECE         106         Durga S         62           B.E.ECE         106         Durga S         62           B.E.ECE         106         Nadhiya M         63           B.E.ECE         106         Nadhiya M         63           B.E.ECE         106         Sudhishree JJ         66           B.E.ECE         106         Sudhishree JJ         66           B.E.ECE         106         Sudhishree JJ         66	B.E.ECE	106	Shabira taj.J	42
B.E.ECE         106         Naga vishwa A         46           B.E.ECE         106         Ram vignesh.R P         46           B.E.ECE         106         Manoj Kumar A         50           B.E.ECE         106         Mohan babu B         50           B.E.ECE         106         Wenkatesh B         50           B.E.ECE         106         Keerthi M         54           B.E.ECE         106         Asaika Begum N         58           B.E.ECE         106         Abirami S         59           B.E.ECE         106         Abirami S         59           B.E.ECE         106         Babitha J         60           B.E.ECE         106         Babitha J         60           B.E.ECE         106         Durga S         62           B.E.ECE         106         Nadhiya M         63           B.E.ECE         106         Sudhishree JJ         66           B.E.ECE         106         Sudhishree JJ         66 <td>B.E.ECE</td> <td>106</td> <td>Mohammed asif M</td> <td>46</td>	B.E.ECE	106	Mohammed asif M	46
B.E.ECE         106         Ram vignesh.R P         46           B.E.ECE         106         Manoj Kumar A         50           B.E.ECE         106         Mohan babu B         50           B.E.ECE         106         Venkatesh B         50           B.E.ECE         106         Keerthi M         54           B.E.ECE         106         Keerthi M         54           B.E.ECE         106         Asika Begum N         58           B.E.ECE         106         Abirami S         59           B.E.ECE         106         Babitha J         60           B.E.ECE         106         Babitha J         60           B.E.ECE         106         Dharshini M         61           B.E.ECE         106         Dharshini M         61           B.E.ECE         106         Davisa S         62           B.E.ECE         106         Nadhiya M         63           B.E.ECE         106         Nadhiya M         63           B.E.ECE         106         Varsha V S         65           B.E.ECE         106         Sudhishree JJ         66           B.E.ECE         106         Subhamozhi P         68 <td>B.E.ECE</td> <td>106</td> <td>Mohamed Ibrahim J</td> <td>46</td>	B.E.ECE	106	Mohamed Ibrahim J	46
B.E.ECE         106         Manoj Kumar A         50           B.E.ECE         106         Mohan babu B         50           B.E.ECE         106         Keerthi M         54           B.E.ECE         106         Keerthi M         54           B.E.ECE         106         Keerthi M         54           B.E.ECE         106         Aasika Begum N         58           B.E.ECE         106         Abirami S         59           B.E.ECE         106         Babitha J         60           B.E.ECE         106         Dharshini M         61           B.E.ECE         106         Dharshini M         61           B.E.ECE         106         Dharshini M         63           B.E.ECE         106         Nadhiya M         63           B.E.ECE         106         Nadhiya M         63           B.E.ECE         106         Swathi P         64           B.E.ECE         106         Sudhishree JJ         66           B.E.ECE         106         Sudhishree JJ         66           B.E.ECE         106         Subhamozhi P         68           B.E.ECE         106         Aarthy M         69	B.E.ECE	106	Naga vishwa A	46
B.E.ECE         106         Mohan babu B         50           B.E.ECE         106         Venkatesh B         50           B.E.ECE         106         Keerthi M         54           B.E.ECE         106         Sneha P         54           B.E.ECE         106         Aasika Begum N         58           B.E.ECE         106         Abirami S         59           B.E.ECE         106         Babitha J         60           B.E.ECE         106         Dharshini M         61           B.E.ECE         106         Durga S         62           B.E.ECE         106         Nadhiya M         63           B.E.ECE         106         Swathi P         64           B.E.ECE         106         Swathi P         64           B.E.ECE         106         Sudhishree JJ         66           B.E.ECE         106         Sudhamozhi P         68           B.E.ECE         106         Subhamozhi P         68           B.E.ECE         106         Aarthy M         69           B.E.ECE         106         Archana P         71           B.E.ECE         106         Archana P         71	B.E.ECE	106	Ram vignesh.R P	46
B.E.ECE         106         Venkatesh B         50           B.E.ECE         106         Keerthi M         54           B.E.ECE         106         Sneha P         54           B.E.ECE         106         Aasika Begum N         58           B.E.ECE         106         Abirami S         59           B.E.ECE         106         Abirami S         59           B.E.ECE         106         Dharshini M         61           B.E.ECE         106         Durga S         62           B.E.ECE         106         Nadhiya M         63           B.E.ECE         106         Nadhiya M         63           B.E.ECE         106         Swathi P         64           B.E.ECE         106         Sudhishree JJ         66           B.E.ECE         106         Sudhishree JJ         66           B.E.ECE         106         Sudhamozhi P         68           B.E.ECE         106         Subhamozhi P         68           B.E.ECE         106         Ajitha S         70           B.E.ECE         106         Ajitha S         70           B.E.ECE         106         Archana P         71	B.E.ECE	106	Manoj Kumar A	50
B.E.ECE         106         Keerthi M         54           B.E.ECE         106         Sneha P         54           B.E.ECE         106         Abirami S         58           B.E.ECE         106         Abirami S         59           B.E.ECE         106         Dharshini M         61           B.E.ECE         106         Durga S         62           B.E.ECE         106         Nadhiya M         63           B.E.ECE         106         Swathi P         64           B.E.ECE         106         Swathi P         64           B.E.ECE         106         Sudhishree JJ         66           B.E.ECE         106         Soundharya R         67           B.E.ECE         106         Sudhishree JJ         68           B.E.ECE         106         Soundharya R         67           B.E.ECE         106         Subhamozhi P         68           B.E.ECE         106         Aarthy M         69           B.E.ECE         106         Ajitha S         70           B.E.ECE         106         Aharana P         71           B.E.ECE         106         Mahavarshini S         73	B.E.ECE	106	Mohan babu B	50
B.E.ECE         106         Sneha P         54           B.E.ECE         106         Aasika Begum N         58           B.E.ECE         106         Abirami S         59           B.E.ECE         106         Babitha J         60           B.E.ECE         106         Dharshini M         61           B.E.ECE         106         Durga S         62           B.E.ECE         106         Nadhiya M         63           B.E.ECE         106         Swathi P         64           B.E.ECE         106         Swathi P         64           B.E.ECE         106         Sudhishree JJ         66           B.E.ECE         106         Sudhishree JJ         66           B.E.ECE         106         Subhamozhi P         68           B.E.ECE         106         Subhamozhi P         68           B.E.ECE         106         Ajitha S         70           B.E.ECE         106         Ajitha S         70           B.E.ECE         106         Archana P         71           B.E.ECE         106         Mahavarshini S         73           B.E.ECE         106         Mahavarshini S         73      <	B.E.ECE	106	Venkatesh B	50
B.E.ECE         106         Aasika Begum N         58           B.E.ECE         106         Abirami S         59           B.E.ECE         106         Babitha J         60           B.E.ECE         106         Dharshini M         61           B.E.ECE         106         Durga S         62           B.E.ECE         106         Nadhiya M         63           B.E.ECE         106         Swathi P         64           B.E.ECE         106         Swathi P         64           B.E.ECE         106         Sudhishree JJ         66           B.E.ECE         106         Soundharya R         67           B.E.ECE         106         Subhamozhi P         68           B.E.ECE         106         Aarthy M         69           B.E.ECE         106         Ajitha S         70           B.E.ECE         106         Archana P         71           B.E.ECE         106         Mahavarshini S         73           B.E.ECE         106         Maheshwari R         74           B.E.ECE         106         Maheshwari R         74           B.E.ECE         106         Manoj S         77	B.E.ECE	106	Keerthi M	54
B.E.ECE         106         Abirami S         59           B.E.ECE         106         Babitha J         60           B.E.ECE         106         Dharshini M         61           B.E.ECE         106         Durga S         62           B.E.ECE         106         Nadhiya M         63           B.E.ECE         106         Swathi P         64           B.E.ECE         106         Swathi P         64           B.E.ECE         106         Varsha V S         65           B.E.ECE         106         Sudhishree JJ         66           B.E.ECE         106         Sudhamozhi P         68           B.E.ECE         106         Aarthy M         69           B.E.ECE         106         Ayitha S         70           B.E.ECE         106         Archana P         71           B.E.ECE         106         Dharini M J         72           B.E.ECE         106         Mahashwari R         74 <tr< td=""><td>B.E.ECE</td><td>106</td><td>Sneha P</td><td>54</td></tr<>	B.E.ECE	106	Sneha P	54
B.E.BCE         106         Babitha J         60           B.E.BCE         106         Dharshini M         61           B.E.BCE         106         Durga S         62           B.E.BCE         106         Nadhiya M         63           B.E.BCE         106         Swathi P         64           B.E.BCE         106         Varsha V S         65           B.E.BCE         106         Sudhishree JJ         66           B.E.BCE         106         Soundharya R         67           B.E.BCE         106         Subhamozhi P         68           B.E.BCE         106         Aarthy M         69           B.E.BCE         106         Ayitha S         70           B.E.BCE         106         Archana P         71           B.E.BCE         106         Mahavarshini S         73           B.E.BCE         106         Mahavarshini S         73           B.E.BCE         106         Mahashwari R         74           B.E.BCE         106         Hemeshwar S         75           B.E.BCE         106         Manoj S         77           B.E.BCE         106         Shabeer Ahamed T         79	B.E.ECE	106	Aasika Begum N	58
B.E.ECE         106         Dharshini M         61           B.E.ECE         106         Durga S         62           B.E.ECE         106         Nadhiya M         63           B.E.ECE         106         Swathi P         64           B.E.ECE         106         Varsha V S         65           B.E.ECE         106         Sudhishree JJ         66           B.E.ECE         106         Soundharya R         67           B.E.ECE         106         Subhamozhi P         68           B.E.ECE         106         Subhamozhi P         68           B.E.ECE         106         Aarthy M         69           B.E.ECE         106         Ajitha S         70           B.E.ECE         106         Archana P         71           B.E.ECE         106         Archana P         71           B.E.ECE         106         Mahavarshini S         73           B.E.ECE         106         Mahavarshini S         73           B.E.ECE         106         Maheshwari R         74           B.E.ECE         106         Hemeshwar S         75           B.E.ECE         106         Manoj S         77	B.E.ECE	106	Abirami S	59
B.E.ECE       106       Durga S       62         B.E.ECE       106       Nadhiya M       63         B.E.ECE       106       Swathi P       64         B.E.ECE       106       Varsha V S       65         B.E.ECE       106       Sudhishree JJ       66         B.E.ECE       106       Soundharya R       67         B.E.ECE       106       Subhamozhi P       68         B.E.ECE       106       Aarthy M       69         B.E.ECE       106       Ajitha S       70         B.E.ECE       106       Archana P       71         B.E.ECE       106       Archana P       71         B.E.ECE       106       Mahavarshini S       73         B.E.ECE       106       Mahavarshini S       73         B.E.ECE       106       Maheshwari R       74         B.E.ECE       106       Hemeshwar S       75         B.E.ECE       106       Manoj S       77         B.E.ECE       106       Manoj S       77         B.E.ECE       106       Shabeer Ahamed T       79         B.E.ECE       106       Sowndharya Lakshmi   D       81         B.	B.E.ECE	106	Babitha J	60
B.E.ECE       106       Nadhiya M       63         B.E.ECE       106       Swathi P       64         B.E.ECE       106       Varsha V S       65         B.E.ECE       106       Sudhishree JJ       66         B.E.ECE       106       Soundharya R       67         B.E.ECE       106       Subhamozhi P       68         B.E.ECE       106       Aarthy M       69         B.E.ECE       106       Ajitha S       70         B.E.ECE       106       Archana P       71         B.E.ECE       106       Dharini M J       72         B.E.ECE       106       Mahavarshini S       73         B.E.ECE       106       Maheshwari R       74         B.E.ECE       106       Hemeshwar S       75         B.E.ECE       106       Hemeshwar S       75         B.E.ECE       106       Manoj S       77         B.E.ECE       106       Manoj S       77         B.E.ECE       106       Shabeer Ahamed T       79         B.E.ECE       106       Sanjay Kumar S       80         B.E.ECE       106       Sowndharya Lakshmi   D       81	B.E.ECE	106	Dharshini M	61
B.E.ECE       106       Swathi P       64         B.E.ECE       106       Varsha V S       65         B.E.ECE       106       Sudhishree JJ       66         B.E.ECE       106       Soundharya R       67         B.E.ECE       106       Subhamozhi P       68         B.E.ECE       106       Aarthy M       69         B.E.ECE       106       Ajitha S       70         B.E.ECE       106       Archana P       71         B.E.ECE       106       Dharini M J       72         B.E.ECE       106       Mahavarshini S       73         B.E.ECE       106       Maheshwari R       74         B.E.ECE       106       Hemeshwar S       75         B.E.ECE       106       Hemeshwar S       75         B.E.ECE       106       Manoj S       77         B.E.ECE       106       Praveen Kumar P       78         B.E.ECE       106       Shabeer Ahamed T       79         B.E.ECE       106       Sowndharya Lakshmi   D       81         B.E.ECE       106       Sowndharya Lakshmi   D       81         B.E.ECE       106       Surgaja Suryawanshi       81	B.E.ECE	106	Durga S	62
B.E.ECE       106       Varsha V S       65         B.E.ECE       106       Sudhishree JJ       66         B.E.ECE       106       Soundharya R       67         B.E.ECE       106       Subhamozhi P       68         B.E.ECE       106       Aarthy M       69         B.E.ECE       106       Ajitha S       70         B.E.ECE       106       Archana P       71         B.E.ECE       106       Dharini M J       72         B.E.ECE       106       Mahavarshini S       73         B.E.ECE       106       Maheshwari R       74         B.E.ECE       106       Hemeshwar S       75         B.E.ECE       106       Hemeshwar S       75         B.E.ECE       106       Manoj S       77         B.E.ECE       106       Manoj S       77         B.E.ECE       106       Shabeer Ahamed T       79         B.E.ECE       106       Sanjay Kumar S       80         B.E.ECE       106       Sowndharya Lakshmi   D       81         B.E.ECE       106       Supraja Suryawanshi       81         B.E.ECE       106       Suresh A       81      <	B.E.ECE	106	Nadhiya M	63
B.E.ECE       106       Sudhishree JJ       66         B.E.ECE       106       Soundharya R       67         B.E.ECE       106       Subhamozhi P       68         B.E.ECE       106       Aarthy M       69         B.E.ECE       106       Ajitha S       70         B.E.ECE       106       Archana P       71         B.E.ECE       106       Dharini M J       72         B.E.ECE       106       Mahavarshini S       73         B.E.ECE       106       Maheshwari R       74         B.E.ECE       106       Hemeshwar S       75         B.E.ECE       106       Jeffry Albert J       76         B.E.ECE       106       Manoj S       77         B.E.ECE       106       Praveen Kumar P       78         B.E.ECE       106       Shabeer Ahamed T       79         B.E.ECE       106       Sivaranjini S       81         B.E.ECE       106       Sowndharya Lakshmi   D       81         B.E.ECE       106       Supraja Suryawanshi       81         B.E.ECE       106       Suresh A       81         B.E.ECE       106       Udaiyappan N       81	B.E.ECE	106	Swathi P	64
B.E.ECE       106       Soundharya R       67         B.E.ECE       106       Subhamozhi P       68         B.E.ECE       106       Aarthy M       69         B.E.ECE       106       Ajitha S       70         B.E.ECE       106       Archana P       71         B.E.ECE       106       Dharini M J       72         B.E.ECE       106       Mahavarshini S       73         B.E.ECE       106       Maheshwari R       74         B.E.ECE       106       Hemeshwar S       75         B.E.ECE       106       Jeffry Albert J       76         B.E.ECE       106       Manoj S       77         B.E.ECE       106       Praveen Kumar P       78         B.E.ECE       106       Shabeer Ahamed T       79         B.E.ECE       106       Sanjay Kumar S       80         B.E.ECE       106       Sivaranjini S       81         B.E.ECE       106       Sowndharya Lakshmi   D       81         B.E.ECE       106       Supraja Suryawanshi       81         B.E.ECE       106       Udaiyappan N       81         B.E.ECE       106       Udaiyappan N       81 <td>B.E.ECE</td> <td>106</td> <td>Varsha V S</td> <td>65</td>	B.E.ECE	106	Varsha V S	65
B.E.ECE       106       Subhamozhi P       68         B.E.ECE       106       Aarthy M       69         B.E.ECE       106       Ajitha S       70         B.E.ECE       106       Archana P       71         B.E.ECE       106       Dharini M J       72         B.E.ECE       106       Mahavarshini S       73         B.E.ECE       106       Maheshwari R       74         B.E.ECE       106       Hemeshwar S       75         B.E.ECE       106       Jeffry Albert J       76         B.E.ECE       106       Manoj S       77         B.E.ECE       106       Praveen Kumar P       78         B.E.ECE       106       Shabeer Ahamed T       79         B.E.ECE       106       Sivaranjini S       81         B.E.ECE       106       Sivaranjini S       81         B.E.ECE       106       Supraja Suryawanshi       81         B.E.ECE       106       Suresh A       81         B.E.ECE       106       Udaiyappan N       81         B.E.ECE       106       Parthiban B       81	B.E.ECE	106	Sudhishree JJ	66
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## KNOWLEDGE GRAPH BASED ON MACHINE LEARNING A PROJECT REPORT

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in partial fulfillment for the award of the degree

of

**BACHELOR OF ENGINEERING** 

in

**ELECTRONICS AND COMMUNICATION ENGINEERING** 

NPR COLLEGE OF ENGINEERING & TECHNOLOGY NATHAM, DINDIGUL

ANNA UNIVERSITY:: CHENNAI 600 025

**MAY 2023** 

Principal
NIP.R. College of Engineering & Technology
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#### BONAFIDE CERTIFICATE

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#### ABSTRACT

In all aspects. Knowledge graphs have become effective methods for representing and organizing structured knowledge. There is a growing need for automated methods to create and use Knowledge graphs due to the global exponential rise in data and the requirement for effective information retrieval and knowledge discovery. In order to overcome these difficulties, Machine Learning techniques have been involved. They make it possible to automatically extract, combine, and link data from many sources in order to build extensive knowledge graphs. The knowledge graph development process starts with data collection, entity recognition, relation extraction, and knowledge fusion. Machine Learning algorithms like natural language processing, information extraction, and graph embedding are used to extract and integrate information from unstructured and semi-structured data sources. These methodologies enable the discovery of semantic relationships between pieces as well as the construction of a coherent and interconnected knowledge graph. An ML/DL based Knowledge graph is a natural way to represent the relationships found in long texts. An ML/DL based Knowledge Graph trained on long texts can extract information and store it in Structured form. For multiple customers, specifications in long texts contain detailed information. These data present in unstructured form needs to be manually entered into data bases. This is a tedious process due the quality and variations in the long texts. An ML/DL based knowledge graph can unlock significant value for organizations, helping manufactures optimize, search, etc. The proposed model of Knowledge Graph will work based on Machine Learning. It has various applications such as, community/cluster detection, Node Classification, Link Prediction, Unstructured text, NLP, Question and Answering systems

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#### **CHAPTER-8**

#### CONCLUSION

In this project, we successfully employed the Rebel model, a state-of-theart machine learning algorithm, for knowledge graph extraction from text. The results obtained demonstrated the effectiveness of the Rebel model in transforming unstructured text into structured representations, constructing coherent and interconnected knowledge graphs. The model showcased robust capabilities in entity recognition, semantic relationship extraction, and data integration, enhancing the usability and utility of the knowledge graphs for various applications.

The knowledge graph extraction process using the Rebel model holds significant potential for improving information retrieval, knowledge discovery, and decision-making processes. By leveraging the Rebel model, organizations and researchers can gain valuable insights from vast amounts of unstructured text data, enabling more efficient and effective utilization of information resources.

In conclusion, the application of the Rebel model for knowledge graph extraction from text holds significant promise. Further research and development in fine-tuning, handling complex text structures, scalability, evaluation, integration with domain-specific knowledge, and explainability will advance the field and unlock the full potential of knowledge graphs for various domains and applications.

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### BONAFIDE CERTIFICATE

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#### ABSTRACT

Crop raiding by animals has become one of the most common human animal disputes as a result of human encroachment of wildlife habitats and deforestation. Wild animals can cause significant damage to agricultural crops and attack farmers working in the field. Farmers suffer huge crop loss due to crop raiding by wild animal like elephants, wild boar and deer. One of the main concerns of today's farmers is protecting crops from wild animals' attacks. There are different traditional approaches to address this problem which can be lethal (e.g., shooting, trapping) and non-lethal (e.g., scarecrow, chemical repellents, organic substances, mesh, or electric fences). Farmers has tried many ways for preventing animals raid from lighting fire crackers to maintain a watch on the field through the night but none of these were effective. Nevertheless, some of the traditional methods have environmental pollution effects on both humans and ungulates, while others are very expensive with high maintenance costs, with limited reliability and limited effectiveness. In this project, we develop a system, that combines Computer Vision using ANN for detecting and recognizing animal species, and specific ultrasound emission (i.e., different for each species) for repelling them. The edge computing device activates the camera, then executes its ANN software to identify the target, and if an animal is detected, it sends back a message to the Animal Repelling Module including the type of ultrasound to be generated according to the category of the animal.





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#### CHAPTER 9

### CONCLUSION AND FUTURE ENHANCEMENT

#### Conclusion

Agricultural farm security is widely needed technology nowadays. In order to accomplish this, a vision-based system is proposed and implemented using Python and OpenCV and developed an Animal Repellent System to blow out the animals. The implementation of the application required the design and development of a complex system for intelligent animal repulsion, which integrates newly developed software components and allows to recognize the presence and species of animals in real time and also to avoid crop damages caused by the animals. Based on the category of the animal detected, the edge computing device executes its DCNN Animal Recognition model to identify the target, and if an animal is detected, it sends back a message to the Animal Repelling Module including the type of ultrasound to be generated according to the category of the animal. The proposed CNN was evaluated on the created animal database. The overall performances were obtained using different number of training images and test images. The obtained experimental results of the performed experiments show that the proposed CNN gives the best recognition rate for a greater number of input training images (accuracy of about 98 %). This project presented a real-time monitoring solution based on AI technology to address the problems of crop damages against animals. This technology used can help farmers and agronomists in their decision making and management process.

Further in the proposed architecture, some image compression techniques can be **Future Enhancement** developed to reduce the time taken for notification to reach user as described above.

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# FUSION OF REVERSIBLE CIRCUITS USING QUANTUM DOT CELLULAR AUTOMATA(QCA)

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#### **CONCLUSIONS**

This project presented Dynamic Sign Language Recognition with three RNN models. GRU, LSTM. BILSTM on DSL10-Dataset. MediaPipe framework was used for the features extraction phase. Two experiments were conducted to show the DSL recognition from twoaspects, and the results show an outperformance in both of them. The proposed method could be put into action in three steps. Prepare a dataset of videos with equal frame counts first. Then, pass the input data to the MediaPipe framework, which will extract the hand, face, and pose keypoints from each frame of the videos. Finally, for the training phase, insert the extracted keypoints into one of the prepared RNN models, GRU, LSTM, or BILSTM.





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# CHAPTER 8 CONCLUSION

#### Conclusion

A comprehensive study on rigid-flexible antenna made from a new substrate has been presented. The prototype has been well made and its performances have also been investigated. The primary approach for the proposed antenna is to use FR4 fabric as the rigid-flexible substrate. The results show that fr4 fabric can act as a reasonable substrate material for flexible applications. Due to its light weight, long durability, low cost and low environmental concerns, it is possible to substitute rigid substrate materials.

This antenna performs well with regard to water absorption and moist conditions (return loss =28.2dB) and is resistant to wear and tear, different types of special antenna can be designed for even search and rescue applications. The results for various parameters (return loss=20.67dB and 23.41dB, respectively) are found to be adequate for wearable applications. Thus, the antenna can be used for various applications such as biomedical, military radio location and especially in ground radar (0 to 3 GHz). However, air gaps in the substrate material, long-term behavior, reduced bandwidth and repeated wash ability need to be addressed in future investigations.





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### SMART FLUIDS AND SEIZURE MONITORING SYSTEM

#### A PROJECT REPORT

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#### ABSTRACT

An recent years, we have seen much technological advancement that help us take better care of patients' health and assure them of a fast and safe recovery. The most basic item necessary is competent patient care in hospitals, as well as proper management of fluids and electrolytes. In a hospital, almost all patients, primarily ICU patients, must regulate the volume of fluids and electrolytes in their bloodstream 24 hours a day, seven days a week, using drip. These drips must be monitored or changed on a regular basis in order to maintain a constant flow of fluids or to prevent infection in patients. Though this system is simple, overcrowded hospitals and the risk of nurse deficiency can put patients at health risk, which can deteriorate patients' health more aggressively or, in worse cases, lead to death.

In almost all hospitals, nurses or hospital staff is responsible for monitoring the drip level. But unfortunately, because of their hectic schedule, the observer may forget to change the bottle at the appropriate time. During the pandemic, hospitals were overrun with patients, and nurses were unable to do manual regular checks on the drip conditions and drip level of every patient, even after working extra shifts. Many patients even died due to not being able to get proper care from nurses. The next step in providing more effective and easy healthcare is to automate such vital procedures. To overcome this critical situation, we are using Drip Monitor System using Arduino UNO, which eases the process of measuring and solves the issue of bubble formation in drips.

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#### CHAPTER-6

### CONCLUSION AND FUTURE WORK

An smart fluids and seizure monitoring system will be very much accurate using level sensor. It will help us monitor patients at regular intervals of time through different alerts. It will also keep the nurses free from haste and parics. It is very beneficial and cost effective. More over this will never go unnoticed since alert is given to multiple mobile phones via messages.

In our Future drip monitoring systems may focus on interoperability and sandardization to ensure scamless communication and integration with other hospital systems. Standardized protocols and data formats would enable interoperability between drip monitoring systems, EHRs, medication management systems, and other healthcare technologies, reducing errors and improving efficiency.

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# ENHANCING THE PERFORMANCE OF CLUSTER HEAD SELECTION IN WSN USING HYBRID OPTIMIZATION ALGORITHM

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#### **ABSTRACT**

The Internet of Things has gained attention from researchers and is still in constant development due to the widespread of smart devices and services. Many challenges face the IoT networks and need to be solved. Reducing energy consumption to increase the network lifetime is the main issue among these challenges. The clustering approach is one of the best solutions to solve this issue. Choosing the best Cluster Heads (CHs) can consume less energy in the WSN. Swarm Intelligence (SI) algorithms can help to solve complicated problems. In this work, we propose a novel algorithm to select the best CHs in the WSN. The novel algorithm is called a Hybrid Optimization Algorithm. We combine the sunflower optimization algorithm (SFO) with the Particle Swarm Optimization to maximize the WSNs lifetime. Such a combination can help the SFO algorithm to avoid trapping in local minima due to the random selection of the PSO. The proposed method aims to improve the network lifetime and reduce energy consumption.





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#### CHAPTER-7 CONCLUSION

This project has proposed a hybrid optimization-based energy efficient cluster head selection protocol for IoT based WSNs. The selection of CH is done using adaptive learning mechanism. Simulations results show that it performs better than existing routing protocols in terms of residual energy and number of alive nodes. So the proposed scheme can be used in wide areas of sensor networks where energy efficiency is a critical issue. In conclusion, our proposed hybrid sunflower optimization algorithm for cluster head selection in IoT networks shows promising results in terms of network performance and adaptability to dynamic environment.





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#### **ABSTRACT**

One of the biggest problems facing electronic device designers is heat dissipation. Reversible Computing is one of the evolving technology that helps us to overcome this heat dissipation. An growing nanoscale technology which is used to get over many complexities of CMOS is quantum-dot cellular automata (QCA) and also it offers a new method of computation and information transformation. Interest in reversible computation arises from the desire to reduce heat dissipation. In this paper the benefits of reverse computing using QCA is proposed. We are designing three reversible gates: CNOT, Feynman and BVF gate. This paper presents a new, simple representation of reversible gates for quantum computing. The proposed QCA designs show better cell count, area used in the construction, number of majority gate and/or clock cycle delay than comparable designs already published.



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#### CHAPTER 6

#### CONCLUSION

Quantum dot-cellular automata (QCA) emerge as a research area to design nanometer scale logic circuit. In digital logic design, a comparator is the fundamental building block that performs the comparison of two numbers. This project deals with the design of reversible building block for 1-bit,2-bit comparator and its implementation in QCA. An improved QCA layout of C- NOT gate is also achieved. The QCA C-NOT gate is denser and has low delay. The proposed FEYNMAN Gate has reduced cell size than the existing system. The quantum cost based comparison of the proposed QCA reversible comparator with conventional reversible comparator shows the cost effective circuit design in QCA. The simulation result matched the truth table of comparator which approves the functional capability of the proposed QCA layout of comparator. All the proposed layouts dissipate very low power.

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# DESIGN AND IMPLEMENTATION OF MICROSTRIP PATCH ANTENNA FOR WEARABLE APPLICATIONS

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#### ABSTRACT

Wearable antenna is helpful for the protection of workers in coal shaft for providing communication. The proposed wearable antenna is designed by using CST (Computer Simulation Technology). Impedance bandwidth of the proposed wearable antenna is suitable for radar application (to track mass movement of falling slopes in surface mines and possible to warn the harmful collapse). The antenna has the wearable and flexible properties despite the performance of ISM (Industrial Scientific Medicine) band and also suitable for industrial application. In the proposed antenna, FR4 is used as a substrate with dielectric constant  $\varepsilon_r$ = 4.3 and loss tangent  $\delta$ = 0.033. The performance of the antenna is compared with antenna of different design in terms of bandwidth, gain, return loss, VSWR and directivity. The radiation performance of the antenna is also analyzed. The main aim of the design of wearable antenna is improvement of return loss and gain.





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#### **ABSTRACT**

The hearing impaired (deaf) community employs a visual gesture language called sign language. In sign language, meaning and extracting information can be expressed by hand gestures, body movements, facial expressions, and emotions. Furthermore, sign languages reduce the communication gap between deaf and regular people, facilitating normal contact. Communication for speech impaired people is an exceeding challenging task, that's why dynamic sign language was developed. Hand gestures and body movements are used to represent vocabulary in dynamic sign language. In this project we use Media pipe in conjunction with RNN models to address dynamic sign language recognition issues. Mediapipe was used to determine the location, shape and orientation by extracting key points of the hands, body and face. We are implementing the dynamic sign language translator whichtranslates dynamic sign language gestures into text and voice. So the communication between aurally impaired people and normal people will become easy

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### DYNAMIC SIGN LANGUAGE TRANSLATOR

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#### ABSTRACT

The power distribution grid currently in use not designed for two-way communication or real time monitoring by service provides. Lack of feedback and automated monitoring makes it difficult for service providers to efficiently manage the power distribution grid and cause delays in reparative actions. A smart system using self-powered IoT devices and LoRa technology can be used to detect and monitor faults in power distribution system. IoT devices are small, low powered devices that can communicate wirelessly with each other and the internet and can be equipped with sensos to detect changes in temperature, vibration and other parameters that can indicate faults in power distribution system. Self-powered IoT devices can harvest energy from their surroundings, eliminating the need for batteries. The smart system can transmit fault data to a central monitoring system, here the data can be analyzed in real time to detect and locate the faults in the power distribution system. It can enable utilities to improve the reliability and efficiency of their operations while reducing maintenance costs and downtime.

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#### **CHAPTER 9**

#### CONCLUSION

In a system equipped with an ESP32 microcontroller and various sensors, actuding a vibration sensor and a radiation sensor, data is collected and processed using Node-RED. The ESP32 serves as the transmitter, while LoRa technology is employed for wireless communication between the transmitter and the receiver. The collected values from the vibration sensor and radiation sensor are transmitted to the receiver, where they are received and analyzed. By examining the variations in the vibration and radiation levels, the system can detect faults or anomalies. This integrated setup allows for real-time monitoring and early detection of any potential issues, enabling prompt intervention and maintenance to ensure the system's optimal performance and safety.





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# STAMPEDE AVOIDANCE USING MICROCONTROLLER BASED SYSTEM

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in

ELECTRONICS AND COMMUNICATION ENGINEERING

NPR COLLEGE OF ENGINEERING & TECHNOLOGY

NATHAM, DINDIGUL

ANNA UNIVERSITY:: CHENNAI 600 025

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#### ABSTRACT

Stampede mainly occurs in industries, complex buildings and religious festivals. Evacuees were pushing against each other trying to get to the front door as fast as possible, but they were trampled underfoot and the door was simply blocked. A fundamental cause of such disorder and blocking is the psychological stress of emergencies on crowd motion. Under intense stress, people may move faster than normal. Stampede occurs under these conditions. Once it occurs, it is very difficult to handle. Due to this, many people losses their lives, many got injuries and it leads to breathing problem also. This project proposes a micro controllerbased solution for this problem. Here gas leakage, fire occurrence and smoke problems are identified by the sensors and the output will be fed to the micro controller. The micro controller processes and check the threshold level, if it exceeds the certain level, it will indicate through selective alarm. It firstly indicates the people who are in more dangerous place. This project also enables stampede avoidance by using set of Arrows that indicates the specific direction for the people to avoid getting trapped in to the hazard zone. The people can follow the direction indicated by the arrows for a safe exit. This project also enables a secondary light control system that helps people to find the way, when all lights go off. This secondary system will come in to power when main power is shut down to avoid electrocutions. This project has found its application in most of the industrial and commercial security applications.



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# CHAPTER 7 CONCLUSION AND FUTURE SCOPE

The project "stampede avoidance" has been completed successfully and the input results are verified. The results are in line with the expected output. The voject has been checked with both software and hardware testing tools. In this work 0 devices" are chosen are proved to be more appropriate for the intended plication. The project is having enough avenues for future enhancement. The oject is a prototype model that fulfills all the logical requirements. The project ith minimal improvements can be directly applicable for real time applications. The project contributes a significant step forward in the field of "Project main", and further paves a road path towards faster development s in the same ld. The project is further adaptive towards continuous performance and peripheral gradations. This work can be applied to variety of industrial and mmercial applications.





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## DESIGN, CONTROL AND IMPLEMENTATION OF VENTILATOR FOR RESPIRATORY SUPPORT

### A PROJECT REPORT

Submitted by

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### **ABSTRACT**

With the ongoing COVID-19 pandemic, the demand for ventilators has increased significantly. Traditional ventilators can be expensive and require specialized training for operation, making them less accessible in resource-limited settings. In this context, there is a need for low-cost and easy-to-use ventilator designs that can be tailored to individual patient needs. In this paper, we propose an IoT-enabled ventilator design that utilizes Arduino and Ambu Bag to regulate airflow based on the patient's oxygen (O2) level, providing personalized ventilation support. The proposed ventilator design incorporates an Arduino microcontroller, which acts as the brain of the system, processing sensor data and controlling the operation of the AmbuBag. The AmbuBag, a manual resuscitator commonly used in emergency situations, serves as the air source for the ventilator. The O2 level of the patient is monitored using an O2 sensor, which is connected to the Arduino. The Arduino processes the O2 level data in real-time and adjusts the airflow of the AmbuBag accordingly to maintain the desired O2 level. Furthermore, the proposed ventilator design is integrated with Internet of Things (IoT) technology, allowing for remote monitoring and control. The ventilator data, including O2 level, airflow rate, and alarm status, can be transmitted to a cloud server via Wi-Fi or other communication protocols. Authorized healthcare professionals can remotely monitor the patient's ventilation status and adjust the ventilator settings as needed through a user-friendly web-based interface. The proposed IoT-enabled ventilator design offers several advantages, including low-cost, simplicity, and patient-specific ventilation control. It has the potential to be deployed in resource-limited settings where traditional ventilators may not be readily available, and it can provide personalized ventilation support based on the patient's specific oxygenation needs. However, there are challenges to be addressed, such as regulatory compliance, safety, and data security.

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## **CHAPTER-8**

## CONCLUSION

In conclusion, the proposed ventilator system design utilizing Arduino and MBU bag, regulated by patient oxygen levels and controlled by IoT, offers a romising solution to address the challenges in ventilator design. The integration farduino and AMBU bag with IoT connectivity allows for efficient and precise ontrol of airflow based on patient oxygen levels, enabling real-time monitoring adjustment. The system's features, such as remote monitoring, safety mechanisms, and compliance with regulatory standards, enhance its performance and ensure patient safety.

With its cost-effective and scalable design, the proposed system has the potential to be utilized in various healthcare settings, including resource-limited environments or during emergencies. By leveraging the power of IoT, the system enables healthcare providers to remotely monitor and control the ventilator parameters, improving patient care and accessibility to medical services.

Further research and development can be conducted to optimize the system's performance, validate its efficacy in clinical settings, and explore additional functionalities, such as data analytics for predictive maintenance and personalized ventilation settings. The proposed system has the potential to contribute to the advancement of ventilator technology, addressing the pressing need for reliable and affordable ventilators in healthcare settings.

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# AN EFFICIENT ENCRYPT METHOD FOR DIGITAL IMAGES USING LOGISTIC MAP & RANDOM SUBSTITUTIONS

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### **ABSTRACT**

Image encryption has been an attractive research field in recent years. The chaos-based cryptographic algorithms have suggested some new and efficient ways to develop secure image encryption techniques. This paper proposes a novel image encryption scheme, which is based on the chaotic tent map. Image encryption systems based on such map show some better performances. The performance and security analysis of the proposed image encryption scheme is performed using well-known ways. The results of the fail-safe analysis are inspiring, and it can be concluded that the proposed scheme is efficient and secure. Firstly, the chaotic tent map is modified to generate chaotic key stream that is more suitable for image encryption. Data hiding are a group of techniques used to put a secure data ina host media (like images) with small deterioration in host and the means to extract the secure data afterwards. For example, steganography can be named. Steganography is one such pro-security innovation in which secret data is embedded in a cover. The rapidly proliferated information and evolution of digital technologies by Information hiding in multimedia data has improved the ease of access to digital information enabling reliable, faster and efficient storage, transfer and processing of digital data and leads to the consequence of making the illegal production and redistribution of digital media easy and undetectable.

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## CHAPTER IX

## CONCLUSION & FUTURE ENHANCEMENT

In this proposed work, an image encryption scheme based on RTenhanced CTM has been proposed. Its security analysis has also be given in detail. Experimental simulation and performance comparison with other systems show that this new scheme has greatly improved the security while possessing all the merits of the pure CTM-based schemes, which obviously leads some practical value in implementation. However, the possibility of recovering the exact original image is a desirable property in many fields, like legal, medical and military imaging. Let us consider that sensitive documents (like bank checks) are scanned, protected with an authentication scheme based on a reversible data hiding, and sent through the Internet. Steganography is one such pro-security innovation in which secret data is embedded in a cover. Reversible data-hidings insert information bits by modifying the host signal, but enable the exact (lossless) restoration of the original host signal after extracting the embedded information. Experimental result shows that the proposed method avoids severe distortion. And also it provides good visual quality.





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## MULTI-SENSOR REAL-TIME MONITORING OF RUNNING MACHINERY ON-BOARD SUBMARINE

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### ABSTRACT

The Monitoring of running machinery in a Warhead Submarine (Typhoon Class) is a complicated process for the crew since it consists of smaller space. Physical access to those running equipment is hazardous and quite difficult such as components like hydraulic motors, Alternators, ACs, Blowers, etc. That kind of Inspection is not much effective in all cases i.e., There is a need for the Submarine to be in Off-Board for the Machinery Inspection, and also special technicians are included for that purpose thus it takes lot of cost and time. Hence Multi-Sensor monitoring of those machinery will be an effective mannerism. It has many advantages compared with previous technology.

Real-Time monitoring can be done with multi-sensor powered by the integration of Artificial Intelligence. This helps them to take proper monitoring of equipment in an efficient way and also reduces cost and maintenance time in an huge way. The older tech was consulted in a wired mannerism or SPM meters methodology is used to analyze the condition. So here we include our solution which helps the crew membersin an effective way by including Multi-Sensor monitoring of those real-time parameters with a software application which was an efficient way for the crew members to monitor that working condition from anywhere. Artificial Intelligence predictive failure recognition is also included for the future purpose of monitoring. Hence the failure can be predicted early and the major disaster can be avoided in such conditions.

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## CHAPTER-8 CONCLUSION

Overall, a multi-sensor real-time monitoring system would greatly ance the safety and efficiency of a submarine's machinery, allowing for active maintenance and reducing the risk of equipment failures while at sea. egration with artificial intelligence, Machine learning algorithms and artificial elligence can be integrated into multi-sensor monitoring systems to enable adictive maintenance. This can help identify potential issues before they cur, allowing for timely maintenance and reducing downtime. Multi-sensor mitoring systems can be integrated with IoT technology, enabling real-time mitoring and control of equipment from remote locations. This can be ricularly useful for large-scale industrial operations where equipment is read across multiple sites.





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## ACCIDENT DETECTION AND ALERT SYSTEM

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### ABSTRACT

Vehicle tracking today is getting tougher with the passage of time, and it is getting difficult to keep track of these vehicles for security and safety purposes. People are today more concerned to keep them safe using the latest technology. We need to ensure the vehicle condition a location of the vehicle.

In this project, we can monitor the location of the vehicle and accident notification. If the vehicle met with an accident, the vibration sensor detects the vibration above the threshold range and mems sensor detects the rolling of the vehicle and then message will be sent to respective person along with GPS location. In the security section, it uses the camera to allow the person in the car. And the number of people's in the car will be detected using the IR sensor.

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## **CHAPTER-7**

## CONCLUSION AND FUTURE USE

In our country, many people have lost their life by accidents, hecause of causalities or improper communication. So, an automatic rehicle accident and theft detection system are implemented. By, using this system we can reduce death due to accidents and we can take immediate action after the accident. Also, it is used in the theft detection. A face recognition system, eye blink sensing system is used in this project. GSM module is used for conveying information about the vehicle accident detection to the owner. The system can be used for track and monitor the vehicle by the owner at anytime from anywhere. Thus, techniques presented in this project provide high security and dependability to the vehicle. The scope of the proposed methodology lies in achieving a faster and efficient vehicle security system. The demand for auto-guard systems for protecting the vehicle from theft and loss is increasing day by day. The proposed system will be an intellectual system to meet this demand.





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## NON-INVASIVE GLUCOSE MONITORING USING IoT

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### ABSTRACT

Diabetes mellitus (DM) is becoming one of the critical challenges to nedical field. Serious illness can be identified by continuous monitoring from a emote. Research has shown conclusively that improved glucose control reduces he long-term complication of diabetes. The traditional and conventional method uch as finger pricking's demerits cause infection. Such type of infections can be wercome by non-invasive technique. The main objective of our project is to nonitor glucose level using non-invasive technique by optical and IoT echnology. The proposed sensor circuit consists of IR LEDs of wavelength '40nm for optical blood glucose measurement and NIR photodiodes to receive he reflected light from body parts to determine the glucose level. The project is mplemented using Arduino IDE for finding the performance matrix of the system s well as various analytical studies. Additionally, we use IoT for storing the data f the patients for reference and we will provide link to monitor the measurement emotely.

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## CHAPTER-7

## CONCLUSION

With the wide use of internet, this work is concentrated to execute the internet technology to establish a system which would communicate through internet for better health. Internet of Things rules the whole world in various fields, mainly in health care sectors. Hence the present work is done to design an Internet of Things based smart patient health tracking system using an Arduino microcontroller. In this, optical sensor is used to detect the glucose level and sends the data to the cloud using internet. This information is also sent othe LCD display, so patient can easily know their health status. During critical situation to alert the doctor, the warning message is sent. The doctor can view the sent data by logging the specific website or IP address. Hence continuous patient monitoring system is designed. Some of the designs are,





Fig.7.1 Sensing Meter

Fig.7.2 Arduino -less



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E-mail sales@vimicrosystems com Website www.vimicrosystems.com GSTIN: 33AAACV0909J1ZJ PAN No. AAACV0909J

Date: 30.07.2022

### TO WHOM IT MAY CONCERN

This is to certify that **Ms. Dharshini B** (920821106017) studying in third year Electronics and Communication Engineering of NPR College of Engineering and Technology, Natham has undergone Internship training in our organization for 14 days from 16.07.2022 to 30.07.2022.

During the period, her conduct was found to be good.

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E-mail . sales@vimicrosystems.com Website . www.vimicrosystems.com GSTIN: 33AAACV0909JIZJ PAN No: AAACV0909J

Date: 30.07.2022

### TO WHOM IT MAY CONCERN

This is to certify that Ms. Durga S (920821106019) studying in third year Electronics and Communication Engineering of NPR College of Engineering and Technology, Natham has undergone Internship training in our organization for 14 days from 16.07.2022 to 30.07.2022.

During the period, her conduct was found to be good.

«Principal

N.P.R. College of Engineering & Technology Natham, Dindigul (Ett) - 624 401.

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लरबुडान्ग्यादेह

For Megatronic

Date: 10.03.2023

### TO WHOMSOEVER IT MAY CONCERN

This is to certify that Ms. Nadhiya M (920821106049) doing Second year B.E, Electronics and Communication Engineering in NPR College of Engineering and Technology, Natham has undergone In-Plant training program offered by our organization during the period of 03.03.2023 - 10.03.2023.

We wish her every success in life

Principal.

N.P.R. College of Engineering & Technology

Natham, Dindigul (CN - 624 401

Megatronics

65, R.K. Mais B Colony, Pesiamedo Pudor, Colombatore - 641 004.

Cell: 98422-85001 Phone: 0422-250 8001 E-mail::megatronicsindia@grad.com

Web: sww.megatronicsindia.in





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Date: 10.03.2023

## TO WHOMSOEVER IT MAY CONCERN

This is to certify that Ms. Swathi P (920821106083) doing Second year B.E, Electronics and Communication Engineering in NPR College of Engineering and Technology, Natham has undergone In-Plant training program offered by our organization during the period of 03.03.2023 - 10.03.2023.

We wish her every success in life

For Megatronic

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65, 8.K. Mills '9' Colony, Peelamedu Pudur, Combatore - 641 004. Cell : 98422-85001 Phone : 0422 - 256 5001 E-mail : megatronicsindia-in Web : www.megatronicsindia-in





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लरहुडांग्लाटेड्

For Megatron

Date: 10.03.2023

### TO WHOMSOEVER IT MAY CONCERN

This is to certify that Ms. Varsha V S (920821106088) doing Second year B.E, Electronics and Communication Engineering in NPR College of Engineering and Technology, Natham has undergone In-Plant training program offered by our organization during the period of 03.03.2023 - 10.03.2023.

We wish her every success in life

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**ರಾತ್ರಶರ್ಗವಾಗಿ**ರಕ

Date: 10.03.2023

### TO WHOMSOEVER IT MAY CONCERN

This is to certify that Ms.Sudhishree J J(920821106081) doing Second year B.E, Electronics and Communication Engineering in NPR College of Engineering and Technology, Natham has undergone In-Plant training program offered by our organization during the period of 03.03.2023 - 10.03.2023.

We wish her every success in life

For Megatroni

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Date: 10.03.2023

### TO WHOMSOEVER IT MAY CONCERN

This is to certify that Ms. Soundharya R (920821106077) doing Second year B.E, Electronics and Communication Engineering in NPR College of Engineering and Technology, Natham has undergone In-Plant training program offered by our organization during the period of 03.03.2023 - 10.03.2023.

We wish her every success in life

For Megatronig

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**ಇತ್ತೂ**ರ್ಡರಾಗಿತ

Date: 10.03.2023

### TO WHOMSOEVER IT MAY CONCERN

This is to certify that Ms. Subamozhi P (920821106079) doing Second year B.E, Electronics and Communication Engineering in NPR College of Engineering and Technology, Natham has undergone In-Plant training program offered by our organization during the period of 03.03.2023 - 10.03.2023.

We wish her every success in life

For Megatronic

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Date: 21.07.2022

## TO WHOM IT MAY CONCERN

This is to certify that **Ms. Aarthy M** (920820106001) studying in third year Electronics and Communication Engineering of NPR College of Engineering and Technology, Natham has undergone In-Plant training in our organization for 10 days from 11.07.2022 to 21.07.2022.

During the period, her conduct was found to be good.

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With Regards



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Date: 21.07.2022

### TO WHOM IT MAY CONCERN

This is to certify that **Ms. Ajitha S** (920820106003) studying in third year Electronics and Communication Engineering of NPR College of Engineering and Technology, Natham has undergone In-Plant training in our organization for 10 days from 11.07.2022 to 21.07.2022.

During the period, her conduct was found to be good.

Principal

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E-mail , sales@vimicrosystems com Website , www vimicrosystems com GSTIN ; 33AAACV0909J1ZJ PAN No : AAACV0909J

Date: 21.07.2022

### TO WHOM IT MAY CONCERN

This is to certify that **Ms. Archana P** (920820106006) studying in third year Electronics and Communication Engineering of NPR College of Engineering and Technology, Natham has undergone In-Plant training in our organization for 10 days from 11.07.2022 to 21.07.2022.

During the period, her conduct was found to be good.

Principal
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Date: 21.07.2022

### TO WHOM IT MAY CONCERN

This is to certify that **Ms. Dharani M J** (920820106010) studying in third year Electronics and Communication Engineering of NPR College of Engineering and Technology, Natham has undergone In-Plant training in our organization for 10 days from 11.07.2022 to 21.07.2022.

During the period, her conduct was found to be good.

Principal

APIX College of Engineering & Technology
Natham, Dindigul (Dt) - 624 401.

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Date: 21.07.2022

#### TO WHOM IT MAY CONCERN

This is to certify that **Ms. Mahavarshini S** (920820106019) studying in third year Electronics and Communication Engineering of NPR College of Engineering and Technology, Natham has undergone In-Plant training in our organization for 10 days from 11.07.2022 to 21.07.2022.

During the period, her conduct was found to be good.

Principal

ILPR College of Engineering & Technology

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Date: 21.07.2022

#### TO WHOM IT MAY CONCERN

This is to certify that **Ms. Maheswari R** (920820106020) studying in third year Electronics and Communication Engineering of NPR College of Engineering and Technology, Natham has undergone In-Plant training in our organization for 10 days from 11.07.2022 to 21.07.2022.

During the period, her conduct was found to be good.

Jifincipal

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लरह्डातन्यतोटइ

Date: 12.08.2022

#### TO WHOMSOEVER IT MAY CONCERN

This is to certify that Mr. Hemeshwar S (920820106014) doing Third year B.E, Electronics and Communication Engineering in NPR College of Engineering and Technology, Natham has undergone Internship training program offered by our organization during the period of 12.07.2022 to 12.08.2022.

We wish him every success in life

For Megatroni

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Megatronics

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<u> ಅಕ್ಕಡಿಸಿಕಾಗಿರ</u>

Date:12.08.2022

#### TO WHOMSOEVER IT MAY CONCERN

This is to certify that Mr. JEFFERY ALBERT J(920820106017) doing Third year B.E, Electronics and Communication Engineering in NPR College of Engineering and Technology, Natham has undergone Internship training program offered by our organization during the period of 12.07.2022 to 12.08.2022.

We wish him every success in life

For Megatronics

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Date: 15.07.2022

#### TO WHOMSOEVER IT MAY CONCERN

This is to certify that Mr. Manoj S (920820106023) doing Third year B.E, Electronics and Communication Engineering in NPR College of Engineering and Technology, Natham has undergone Internship training program offered by our organization during the period of 12.07.2022 to 12.08.2022.

We wish him every success in life







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**लह्कुडातन्नाहरू**डल

Date: 15.07.2022

#### TO WHOMSOEVER IT MAY CONCERN

This is to certify that Mr. Praveenkumar P (920820106029) doing Third year B.E, Electronics and Communication Engineering in NPR College of Engineering and Technology, Natham has undergone Internship training program offered by our organization during the period of 12.07.2022 to 12.08.2022.

We wish him every success in life

For Megatroni

4Principal N.P.R. College of Engineering & Technology Natham, Dindigul (Dt) - 624 401.

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Date: 15.07.2022

#### TO WHOMSOEVER IT MAY CONCERN

This is to certify that Mr. Sabeer Ahamed T (920820106032) doing Third year B.E, Electronics and Communication Engineering in NPR College of Engineering and Technology, Natham has undergone Internship training program offered by our organization during the period of 12.07.2022 to 12.08.2022.

We wish him every success in life

For Megatronic

Principal MPR College of Engineering & Technoleg Natham, Dindigul (Dt) - 624 401

Megatronics.

65. R.K. Mills 18: Colony, Pesiamedu Pudur, Colimbatore - 641 DO1. Cell : 98422-85901 Phone : 0422 - 256 6901 F-mail : megatronicsindis@gmad.cear Web : www.megatronicsindis.in





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<u> ಅಕ್ಷಣಗಾರಗಾರ</u>

Date: 15.07.2022

#### TO WHOMSOEVER IT MAY CONCERN

This is to certify that Mr. Sanjay Kumar S (920820106035) doing Third year B.E, Electronics and Communication Engineering in NPR College of Engineering and Technology, Natham has undergone Internship training program offered by our organization during the period of 12.07.2022 to 12.08.2022.

We wish him every success in life

For Megatronics

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## **ELYSIUN**

GST No: 33AACCE2334EIZA CIN No: U72200TN2006PTC060465







Date: 07.03.2023

#### TO WHOMSOEVER IT MAY CONCERN

This is to certify that the students of Third year ECE of NPR College of Engineering & Technology, Natham have successfully done the Internship training in our concern from 21.02.23 - 07.03.2023

During this period they were sincere and hardworking.

S.No.	Name of the student	Register Number	Year& Branch
1.	Sivaranjani S	920820106039	III ECE
2.	Soundarya Lakshmi D	920820106041	III ECE
3.	Supraja Suryawanshi	920820106042	III ECE
4.	Suresh A	920820106043	III ECE
5.	Udaiyappan N	920820106045	III ECE
6.	Parthiban B	920820106304	III ECE

&Principal IDR College of Engineering & Technology Natham, Dindigul (Dt) - 624 401.

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info@elysiumtechnologies.com www.elysiumtechnologies.com

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(Institute for technical traning)

Cell: 9655913231, 9566913231 Mall: thebrighttechnology@gmatl.com

Date: 15.03.2023

## To whomsoever it may concern

This is to certify that Mr.Vibhu Viswa Deep B K, Second year ECE of NPR College of Engineering & Technology, Natham has undergone In-Plant training in our organization from 08.03.2023 - 15.03.2023

We appreciate his participation with interest towards the training program.

Principal

NER College of Engineering & Technology

Natham, Dindigul (Dt) - 624 401.

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Sri Varadharaja Bavanum.Canara Bank Upstairs, Nagal Nagar, R.S. Road, Dindigul - 624002



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(Institute for technical traning)

Cell: 9655913231, 9566913231 Mall: thebrighttechnology@gmail.com

Date: 15.03.2023

## To whomsoever it may concern

This is to certify that **Mr.Thirumalai Karthick N**, Second year ECE of NPR College of Engineering & Technology, Natham has undergone In-Plant training in our organization from 08.03.2023 - 15.03.2023

We appreciate his participation with interest towards the training program.

Principal

N.P.R. College of Engineering & Technology

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NATHAN S

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Cell: 9655913231, 9566913231 Mail: thebrighttechnology@gmail.com

Date: 15.03.2023

#### To whomsoever it may concern

This is to certify that Mr.Vignesh K, Second year ECE of NPR College of Engineering & Technology, Natham has undergone In-Plant training in our organization from 08.03.2023 - 15.03.2023

We appreciate his participation with interest towards the training program.

Principal

N.P.P. College of Engineering & Technology
Natham, Dindigul (Dt) - 624 401.

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(Institute for technical traning)

Cell : 9655913231 , 9566913231 Mall : thebrighttechnology@gmall.com

Date: 15.03.2023

#### To whomsoever it may concern

This is to certify that Mr.Vignesh R, Second year ECE of NPR College of Engineering & Technology, Natham has undergone In-Plant training in our organization from 08.03.2023 - 15.03.2023

We appreciate his participation with interest towards the training program.

Principal

PR College of Engineering & Technology

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Date: 15.03.2023

#### To whomsoever it may concern

This is to certify that Mr.Vigneswaran T, Second year ECE of NPR College of Engineering & Technology, Natham has undergone In-Plant training in our organization from 08.03.2023 - 15.03.2023

We appreciate his participation with interest towards the training program.

Principal

N.P.R. College of Engineering & Technology

Natham, Dindigul (Dt) - 624 401.

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E-mail sales@vimicrosystems com Website www.vimicrosystems.com GSTIN: 33AAACV0909J1ZJ PAN No AAACV0909J

Date: 28.01.2023

#### TO WHOM IT MAY CONCERN

This is to certify that **Mr. Nithishkumar K** (920821106051) studying in Second year Electronics and Communication Engineering of NPR College of Engineering and Technology, Natham has undergone In-Plant training in our organization for 10 days from 18.01.2023 - 28.01.2023

During the period, his conduct was found to be good.

Principal

N.P.R. College of Engineering & Technology Natham, Dindigul (Dt) - 624 401 S CONTRACTOR OF THE CONTRACTOR

With Regards



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Natham, Dindigul - 624 401. Web: www.nprcet.org

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Date: 28.01.2023

#### TO WHOM IT MAY CONCERN

This is to certify that **Mr. Parthasarathi K** (920821106053) studying in Second year Electronics and Communication Engineering of NPR College of Engineering and Technology, Natham has undergone In-Plant training in our organization for 10 days from 18.01.2023 - 28.01.2023.

During the period, his conduct was found to be good.

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N.P.R. College of Engineering & Technology

Natham, Dindigul (Dt) - 624 401

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E-mail . sales@vimicrosystems com Website . www.vimicrosystems.com GSTIN: 33AAACV0909J1ZJ PAN No : AAACV0909J

Date: 28.01.2023

#### TO WHOM IT MAY CONCERN

This is to certify that **Ms. Pavithra K** (920821106054) studying in Second year Electronics and Communication Engineering of NPR College of Engineering and Technology, Natham has undergone In-Plant training in our organization for 10 days from 18.01.2023 - 28.01.2023.

During the period, her conduct was found to be good.

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PAN No. AAACV0909J

Date: 28.01.2023

#### TO WHOM IT MAY CONCERN

This is to certify that Mr. Pommendran R (920821106055) studying in Second year Electronics and Communication Engineering of NPR College of Engineering and Technology, Natham has undergone In-Plant training in our organization for 10 days from 18.01.2023 - 28.01.2023.

During the period, his conduct was found to be good.

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With Regards

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E-mail\_sales@vimicrosystems.com Website \_www.vimicrosystems.com GSTIN: 33AAACV0909J1ZJ PAN No: AAACV0909J

Date: 28.01.2023

#### TO WHOM IT MAY CONCERN

This is to certify that **Mr. Premkumar G** (920821106060) studying in Second year Electronics and Communication Engineering of NPR College of Engineering and Technology, Natham has undergone In-Plant training in our organization for 10 days from 18.01.2023 - 28.01.2023.

During the period, his conduct was found to be good.

Principal

Principal

Principal

REPR. College of Engineering & Technology

Natham, Dindigul (Dt) - 624 401

SS COMMENT

With Regards



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E-mail sales@vimicrosystems.com Website www.vimicrosystems.com GSTIN: 33AAACV0909J1ZJ PAN No. AAACV0909J

Date: 21.07.2022

#### TO WHOM IT MAY CONCERN

This is to certify that **Mr. Ramaprabhakaran R** (920821106064) studying in Second year Electronics and Communication Engineering of NPR College of Engineering and Technology, Natham has undergone In-Plant training in our organization for 10 days from 18.01.2023 - 28.01.2023.

During the period, his conduct was found to be good.

"Principal MPR College of Engineering & Technolegy Natham, Dindigul (Dt) - 624 401 Cardy S

With Regards
OF VI Microsystem



mina interoprocessor thansers, process control transers, power electronics trainers, osp transers, personal computer transers

from J. G. Sabarish, Assistant professor [ECE, NPR College of Engineering & Technology Natham. To The Principal, NPR College of Engineering DTechnology, Natham. Respected Six, Sub: Permission for Industrial Visit - Rog-Our ECE 54 Students and 2 Statt ame Planning to Visit UNID TECHNOLOGIES, Coimbatore as a paral of Industrial Visit on 25.11. 2002. So we sequest you to give Persmission for below mentioned statts

and students. Kindly do the needful.

Date: 15.11.2022.

Place: Natham.

Yours Sixocely Flahat J. G. Sabanish

FORWARDED TO ADMIN. OFFICE /

d. d. 15.11.2022

Dr.M. Ameera Banu) HOD/ECE

PRINCIPAL N.P.R. College of Engineering & Yechnology Natham, Dindigul (Dt) - 624 401





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Date: 19.11.2022

To

The Centre Head,

UNIQ Technologies,

Coimbatore.

Respected sir,

Sub: Seeking permission for one day visit to UNIQ Technologies, Coimbatore – Reg.

Warm greeting from NPR College of Engineering & Technology.

84 Students and 2 faculties have planned to visit your UNIQ Technologies on 25.11. 2022. The visit will be useful for our students to have a good practical knowledge about manufacturing of Electronics elements.

Looking forward for your permission.

Thank you

**PRINCIPAL** 





## ACCEPTANCE MAIL FOR INDUSTRIAL VISIT TO UNIQ TECHNOLOGIES

11/19/22, 5:28 PM	seeking Permission to visiting Yo	seeking Permission to visiting Your Company - <a href="mailto:nprceleges.org">nprceleges.org</a> - NPR COLLEGES Mail			
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		echnologies.c		19/11/2022,4.30PM	
	Mr.JG.Sabarish Assistant Professor NPR college of engined Natham	ering & Tech			
	¿ <u>azfar@unique</u> To NPRCET		s.co.in¿ orcolleges.org¿	11/22/2022,10.00PM	
			to visit UNIQ Technologies, Coimbatore on provide official letter from head of the instit		





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# DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING INDUSTRIAL VISIT TO UNIQ TECHNOLOGIES, COIMBATORE

## STUDENTS ATTENDANCE LIST DATE: 25.11.2022 ECE

EGE			
S.No	Register No	Name	year
1	920820106001	M.Aarthy	III
2	920820106002	Ajai Gowtham S	III
3	920820106003	S.Ajitha	III
4	920820106004	Akash.S	III
5	920820106005	Aravinthan.S	III
6	920820106006	Archana.P	III
7	920820106007	Ariharan.K	III
8	920820106008	Bala Sakthi S	III
9	920820106010	MJ.Dhaarini	III
10	920820106011	Hareesh V	III
11	920820106012	C.Harini	III
12	920820106014	Hemeswar S	III
13	920820106015	R.Jawahar	III
14	920820106016	Jeeva.S	III
15	920820106017	Jeffery Albert J	III
16	920820106018	G. Lokesh Kanna	III
17	920820106019	Mahavarshini s	III
18	920820106020	Maheswari.R	III
19	920820106021	A.Malavika	III
20	920820106022	N.Maniyammaiyar	III
21	920820106023	S Manoj	III
22	920820106024	A.Meera Jafrin	III
23	920820106025	Mohammed Thoufiq Agarish. R	III
24	920820106026	L.Muneeswari	III
25	920820106027	Nandhini.A	III
26	920820106028	Nivethitha V	III
27	920820106029	P.Praveenkumar	III
28	920820106032	T. Sabeer Ahamed	III
29	920820106033	Sai Sankara Narayanan	III
30	920820106034	Sandhiya D	III
31	920820106035	Sanjai Kumar. S	III
32	920820106036	R.Santhini	III

33	920820106037	M.Selva Kumar	III
34	920820106038	Sivaprasad K	III
35	920820106039	Sivaranjani.S	III
36	920820106041	Soundarya Lakshmi D	III
37	920820106042	Supraja Suryawanshi.S	III
38	920820106043	Suresh.A	III
39	920820106044	Tharani.V	III
40	920820106045	Udaiyappan.N	III
41	920820106046	Vasanthakumar.M	III
42	920820106301	Aswathaman.A	III
43	920820106302	Ns.Dhurgadevi	III
44	920820106303	Gayathri. M	III
45	920820106304	Parthipan B	III
46	920820106305	Pasilan R	III
47	920821106041	Melvin Mecvaan J	II
48	920821106042	Mohamed Baruk S	II
49	920821106043	Mohamed Imthiyas K	II
50	920821106044	Mohammed Hissam R	II
51	920821106045	Mohesh Nandhu B	II
52	920821106046	Mukesh Varma M	II
53	920821106047	Nachammai C	II
54	920821106048	Nadhira Banu N	II
55	920821106050	Neha A	II
56	920821106056	Ponraj H	II
57	920821106057	Pothini M	II
58	920821106058	Prasanna Kumar V	II
59	920821106059	Prathisha P	II
60	920821106061	Priyadharshini S	II
61	920821106062	Pugalenthi K	II
62	920821106063	Ragul M	II
63	920821106071	Sarathi R	II
64	920821106072	Sathasivam M	II
65	920821106073	Shanmuganathan C	II
66	920821106074	Shanofar Begum S	II
67	920821106075	Siva Balaji M	ll II
68	920821106076	Sivabalan S	ii ii
69	920821106080	Subash Chandra Bose S	ii ii
70	920821106082	Sushmitha N P	II
71	920821106082	Thoufikraja S	II
71	920821106088	Varsha V S	II
	920821106089	Veera Lakshmi M	II
73	920821106089	Vijayashree R	l II
74	920821106094	Vinoth Kumar K	II II
75		Kishorekrishnaa J	
76	920819106026	MISHULEKHISHHAA J	IV

77	920819106028	Madhumitha P	IV
78	920819106019	Harishwar S	IV
79	920819106020	Josephrumsbilt R	IV
80	920819106015	Dhinesh M	IV
81	920819106053	Saran G V	IV
82	920819106055	Sham Hiruthick R	IV
83	920819106002	Afrin Shifana S	IV
84	920819106051	Rishvana Parveen S	IV

## **FACULTY INCHARGES:**

## Total present - 84

S.NO	STAFF NAME	DESIGNATION
1	J.G.SABARISH	AP/ECE
2	S.Priyadharshni	AP/ECE





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#### **PHOTO GALLERY**



OUR THIRD YEARS STUDENTS AT UNIQ TECHNOLOGIES, COIMBATORE on 25.11.2022