2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

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ACADEMIC YEAR 2021-22

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1. EXPERIENTIAL LEARNING

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1.1 INDUSTRIAL VISIT

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INDUSTRIAL VISIT

DEPARTMENT WISE STUDENT PARTICIPATED LIST

S.NO	DEPT	YEAR	NAME OF THE COMPANY	DATE
1.	CIVIL	II,III,IV	BHAVANISAGAR DAM , SATHYAMANGALAM, TAMIL NADU	11.04.2022
3.	ECE	II,III,IV	PRAGATHI HI TECH CIRCUITS PVT LTD	20.11.2021

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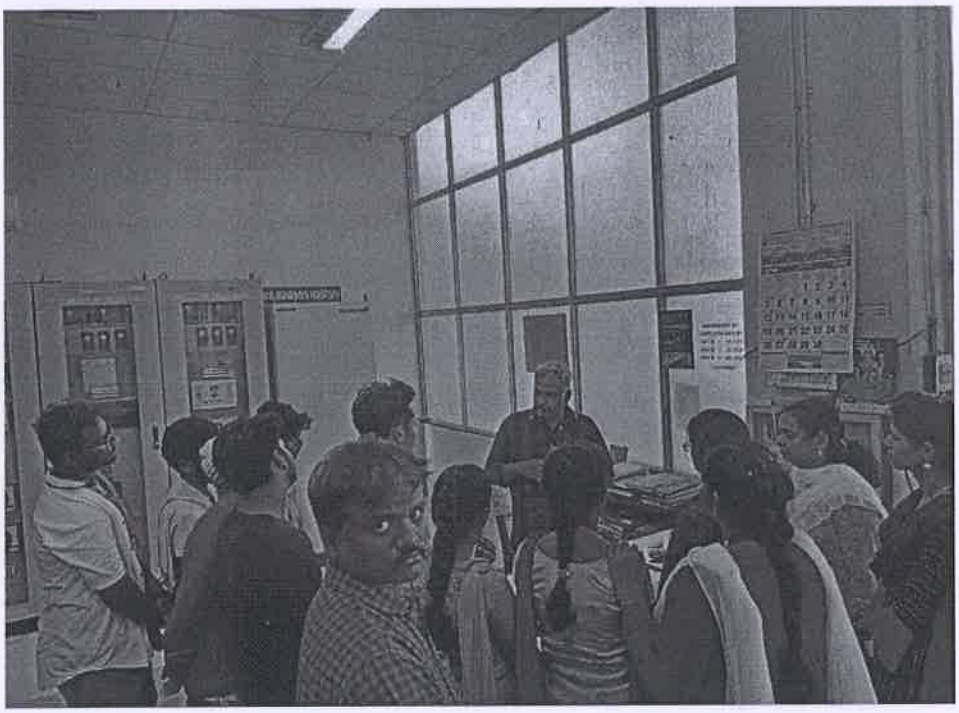
2.3.1: EXPERIENTIAL LEARNING: 2021-2022

INDUSTRIAL VISITS

DEPARTMENT OF CIVIL ENGINEERING

- Our Civil Department Students and Faculty Members from JKKMCT Institution of total 15 members were gone to an industrial visit on 11.04.2022 (Saturday) to Bhavanisagar Dam or Lower Bhavani Dam, is located in Erode district, Tamil Nadu, India. The dam is constructed on the Bhavani river.It is one of the world's largest earthen dams. The dam is situated some 16 km (9.9 mi) west of Sathyamangalam, is 35 km (22 mi) from Gobichettipalayam and is 36 km (22 mi) north-east to Mettupalayam.The Lower Bhavani Project was the first major irrigation project initiated in India, after independence, in 1948. It was completed by 1955 and opened for use in 1956. The dam was constructed at a cost of 210 million (US$2.8 million).



INDUSTRIAL VISIT TO BHAVANISAGAR DAM

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BHAVANISAGAR DAM INDUSTRIAL VISIT - OUTCOME REPORT

- As our Civil department students and faculty members were planned and went to an industrial visit at Bhavanisagar dam to learn about the dam features. Also we learned there about how the water pressure is controlled optimally and how they generating power from water.

- The dam has a storage of 32,303 mcft as against its capacity of 32,800 mcft and the outflow from the dam is recorded at 2,700 cusecs.

- Though Bhavanisagar dam is 130 ft high, water can be stored only at a height of 120 ft. If the dam were to receive surplus water, the entire quantity would be diverted to lower Bhavani project ayacut canal and old ayacuts of Bhavani River, including Kalingarayan, Thadapalli and Arakkankotta.

- The dam is the primary water source for more than 2.5 lakh acres spread across Erode, Karur and Tirupur districts. The dam has two hydrodelectric power stations, one on the east bank canal and the other on the Bhavani river. Each has a capacity of 8 megawatts (11,000 hp) for a total capacity of 16 megawatts (21,000 hp).

- Bhavanisagar dam is constructed on the Bhavani River. The dam receives water from two main catchment areas in the Western Ghats. The water is fed into the Bhavani river known as Upper Bhavani. The eastern catchment area includes the Upper Bhavani, Avalanche and Emerald lakes, Kundha, Gedhai, Pillur and Nellithurai . The western catchment area includes Portimund, Parson's valley, Pykara, Glenmorgan, Chinkara, Maravakandy, Moyar and Thengumarahatta.

- The dam is fed by both Southwest and Northeast monsoons.The dam feeds water into two canals, Lower Bhavani Project Canal and Kalingarayan Canal.The Kalingarayan canal feeds Thadapalli and Arakkankottai channels and the LBP canal feeds the Thadapalli and Arakankottai channels. And it was a good opportunity and experience to know about the history and power generation of Bhavanisagar dam for all our students and staff members of JKKMCT.

- We are very thankful for Junior Engineer of power generation unit, Mr.Saravanakumar Sir and Junior Engineer of P.W.D, Mr. Suresh Balaji sir, who accepted our request and permitted there to visit Bhavanisagar dam and for their detailed and calm explanation. And also we delicate our sincere thanks to our Principal Sir, who always encourage us tremendously.

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Industrial Visit Report

Name of the Industry: PRAGATHI HI-TECH CIRCUITS PVT.,LTD, , 6, Ayyappa nagar, Chinnavedampatti, Coimbatore

Date of visit: 20.11.2021

Total No. of Students: 35

Total No. of Faculty: 04

Faculty Coordinator: D.ANANDAKUMAR

The department has arranged an industrial visit to **PRAGATHI HI-TECH CIRCUITS PVT.,LTD,** Coimbatore, Tamil Nadu 641049. on 20.11.2021 for our students. The visit was organized with the prior permission and guidance of Principal and Head of Electronics and Communication Engineering Department.

Details of Visit: 20.11.2021

Course(s) related to visit: The course having what is PCB and basic components of PCB. It contains the types and manufacturing process.

Outcomes of the visit:

Students reached **PRAGATHI HI-TECH CIRCUITS PVT.,LTD** at Coimbatore at 10.00 AM. They are grouped and enter into the industry. The managing director Er.G.Subramaniam explained each process done in the PCB board manufacturing process. It has followed by steps:

1. **Process :**

   The Larger size copper clad sheet was cut into required size before printing the circuits in screen printing machine.

2. **Screen Printing:** The PCB negative was etched in the screen and it was printed in the copper clad sheet. The principal sheets one put into over to dry.

3. **Removing Excess Copper:**

   The dried PCB are after put into the electrical Champer to remove the excess copper (the copper is other from printing one)

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4. **Drilling:**

Design the PCB was cleaned and then sends to drilling process. the required holes are drilled by high speed drilling machine or automatic drilling machine (CNC) machine. Then the drilled PCB is send to roughing process.

5. **Green Masking and component printing:**

The Cleaned PCB are being coated with green mask ink in this screen printing machine to avoid corrosion. Then the back side of the PCB was printed with components symbol, in this screen printing also now PCB was ready to use.

Gap identification in curriculum:

Generally the curriculum having what is Printed circuit board (PCBs) theory and their types and cost. Curriculum not having practical how to all the types of manufacturing process in live.

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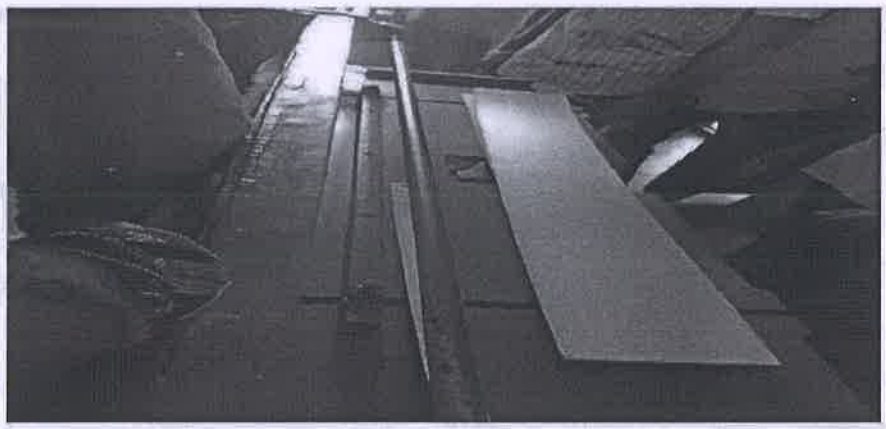
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Photos:



Edging process in Large copper clad sheet

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PCB Screen Printing

PCB Board cutting machine process

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Group Photos

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1.2 INTERNSHIP

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INTERNSHIP UNDERGONE BY STUDENTS

INTERNSHIP

DEPARTMENT WISE STUDENT PARTICIPATED LIST

S.NO	DEPT	NAME OF THE STUDENT	NAME OF THE COMPANY	DURATION
1	CIVIL	GANGA M MUNIESWARAN S KAVYA M	QRMC READY MIX PLANT, COIMBATORE.	07.02.2022 to 12.02.2022
		ANIL KUMAR BALDABOI DEBACHAND MUDULI DIVAKAR R	RAM ENGINEER & CONTRACTOR	07.02.2022 to 12.02.2022
		POORNIMA S RAJ KUMAR V TANA LALIK	AGN CONSTRUCTION	16.03.2022 to 30.04.2022
		JAYASURIYA J THAMIL SELVI M	Max CADD	16.03.2022 to 30.04.2022
2.	ECE	BABY SHALINI G PRIYA R PRIYA V PRIYADHARSINI A SANTHIYA A RAMACHANDHIRAN G JAGADESH KUMAR G SURENDHAR P NARMATHA M SABARI GAYATHRI A	ELITE SYSTEMS ANDCONTROLS ERODE.	20.12.2021 to 31.12.2021

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		DEEPAK M DHARANI M JAI SRI ADITHYA T KEERTHANA	UNIVERSAL POWER SUPPLIES DEPARTMENTOF R & D CENTRE, BHAVANI.	13.12.2021 to 24.12.2021
		ARUNKUMAR M C SUDEEP J		15.03.2021 to 26.03.2021
3.	MECH	J. MANOJ K.SIVANANTH P.VIGNESH	QUEEN INDIA ENGINEERING SERVICES	24.01.2022 to 27.01.2022
		KUMARAVEL M THIRUMURUGAN M RAMESH B	PERIYASAMY HYDRAULIC EQUIPMENTS	01.07.2021to 14.07.2021
4.	MECH & AUTO	III & IV YEAR STUDENTS	QUEEN INDIA ENGINEERING SERVICES	17.02.2022

CIVIL ENGINEERING

- MUNIESWARAN S, GANGA M, KAVYA M, of civil engineering undergone internship at "QRMC Ready mix Plant", Coimbatore from 07.02.2022 to 12.02.2022.
- RAJ KUMAR V,TANA LALIK,POORNIMA S,TAMILSELVI internship at civil engineering undergone implant training of "QRMC Ready mix Plant,", Coimbatore from 07.02.2022 to 12.02.2022.
- ANILKUMAR BALDABOI, DEBACHAND MUDULI, DIVAKAR R, of civil engineering undergone internship at "RAM ENGINEER&CONTRACTOR", Coimbatore from 07.02.2022 to 12.02.2022.
- J.JAYASURYA S.THAMILSELVI of civil engineering undergone internship at civil engineering undergone implant training of "Max CADD", from 16.03.2022 to 30.04.2022.

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Q RMC

INTERNSHIP CERTIFICATE

TO WHOM SO EVER IT MAY CONCERN

This is to certify that **MUNIESWARAN S, Fourth-year** in civil engineering Register No. **731218103005** student of J.K.K. Munirajah college of technology at T.N.Palayam , Gobi (TK) , Erode (Dt) -638 506 had undergone the inplant training in our concern ,work site at residential building at **16/03/202 to 30/04/2022** . His conduct and character was good during the training period.

FOR Q RMC

Date : **30/04/2022**

AUTHORIZED SIGNATORY

Office Address:
SF No.83, East Arasur Village, Arasur Amman Nagar, Coimbatore - 641 407.

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INTERNSHIP CERTIFICATE

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This is to certify that KAVYA M , Fourth - year in civil engineering Register No. 731218103003 student of J.K.K. Munirajah college of technology at T.N.Palayam , Gobi (TK) , Erode (Dt) -638 506 had undergone the inplant training in our concern ,work site at residential building at 16/03/2022 TO 30/04/2022 . Her conduct and character was good during the training period.

FOR Q RMC

Date : 30/04/2022

AUTHORIZED SIGNATORY

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This is to certify that **GANGA M , Fourth** - year in civil engineering Register No. **731218103001** student of J.K.K. Munirajah college of technology at T.N.Palayam , Gobi (TK) , Erode (Dt) -638 506 had undergone the inplant training in our concern ,work site at residential building at **16/03/2022 TO 30/04/2022** Her conduct and character was good during the training period.

FOR Q RMC

Date :30/04/2022

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AGN Construction

INTERNSHIP CERTIFICATE

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This is to certify that **RAJKUMAR V** Final year in civil Engineering Register no. **731218103 006** student of J.K.K Munirajah College of Technology at T.N Palayam, Gobi (T.K), Erode (Dt) – 638506 has undergone the **Intern** training in our concern, work site at AGN Constructions site building from **16/03/2022-30/04/2022** .His conduct and character was good during the training period.

FOR AGN

DATE:**30/04/2022**

AUTHORIZED SIGNATURE

Office Address:
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Mobile no: 96290 20356, 98437 68536

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This is to certify that **POORNIMA S** Final year in civil Engineering Register no. **731218103301** student of J.K.K Munirajah College of Technology at T.N Palayam, Gobi (T.K), Erode (Dt) – 638506 has undergone the **Intern** training in our concern, work site at AGN Constructions site building from **16/03/2022-30/04/2022** .Her conduct and character was good during the training period.

FOR AGN

DATE:30/04/2022

AUTHORIZED SIGNATURE

Office Address:
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Mobile no: 98290 20356, 98437 69536

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This is to certify that **TANA LALIK** Final year in civil Engineering Register no. **731218103009** student of J.K.K Munirajah College of Technology at T.N Palayam, Gobi (T.K), Erode (Dt) – 638506 has undergone the **Intern** training in our concern, work site at AGN Constructions site building from **16/03/2022-30/04/2022** .His conduct and character was good during the training period.

FOR AGN

DATE:30/04/2022

AUTHORIZED SIGNATURE

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Mobile no: 96290 20358, 98437 68536

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Ram Engineer
& Contractor

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Kabilarmalai - 637 204,
P.Velur Tk., Namakkal Dt.
Cell: 94880 36003, 77084 36003.
E-mail: ramasamy1338@gmail.com

Plan + Estimation + Blue Print + Vastu + Construction + Supervising + Building Approval
+ Bank Loan + Elevation + Structural Design + Interior & Exterior Design

Er. T. RAMASAMY, DCE., B.E. (Civil)., M.Tech., (Str. Eng)
Consulting Civil Engineer

INTERNSHIP CERTIFICATE

This is to certify that **ANILKUMAR BALDABOI** Third year in civil Engineering Register no. 731219103002 student of J.K.K Munirajah College of Technology at T.N Palayam, Gobi(T.K), Erode(Dt) – 638506 has undergone the inplant training in our concern, work site From 07.02.2022 to 12.02.2022. His conduct and character was good during the training period.

T. RAMASAMY M.E,
Proprietor
RAM ENGINEER AND CONTRACTOR
P.Velur (Tk), Namakkal (Dt) - 637 204.

DATE:12.02.2022

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Plan + Estimation + Blue Print + Vastu + Construction + Supervising + Building Approval + Bank Loan + Elevation + Structural Design + Interior & Exterior Design

Er. T. RAMASAMY, DCE., B.E., (Civil)., M.Tech., (Str. Eng)
Consulting Civil Engineer

INTERNSHIP CERTIFICATE

This is to certify that **DEBACHAND MUDULI** Third year in civil Engineering Register no. 731219103003 student of J.K.K Munirajah College of Technology at T.N Palayam, Gobi(T.K), Erode(Dt) – 638506 has undergone the inplant training in our concern, work site From 07.02.2022 to 12.02.2022. His conduct and character was good during the training period.

T. RAMASAMY M.E,
Proprietor
RAM ENGINEER AND CONTRACTOR
P.Velur (Tk), Nammakal (Dt) - 637 204.

DATE:12.02.2022

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Ram Engineer & Contractor

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Plan + Estimation + Blue Print + Vastu + Construction + Supervising + Building Approval
+ Bank Loan + Elevation + Structural Design + Interior & Exterior Design

Er. T. RAMASAMY, DCE., B.E. (CM)., M.Tech., (Str. Eng)
Consulting Civil Engineer

INTERNSHIP CERTIFICATE

This is to certify that **DIVAKAR R** Second year in civil Engineering Register no. 731219103001 student of J.K.K Munirajah College of Technology at T.N Palayam, Gobi(T.K), Erode(Dt) – 638506 has undergone the inplant training in our concern, work site From 07.02.2022 to 12.02.2022. His conduct and character was good during the training period.

T. RAMASAMY M.E,
Proprietor
RAM ENGINEER AND CONTRACTOR
P.Velur (Tk), Nammakal (Dt) - 637 204.

DATE:12.02.2022

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Certified Training Centre

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This is to certify that **THAMILSELVI M** **Final** *year in civil engineering Reg No.* **731218103302** *student of J.K.K. Munirajah college of technology at T.N.Palayam , Gobi (TK) , Erode (Dt) -638 506 completed the training course on work site at residential building at* **16/03/2022 to 30/04/2022** .Her *conduct and character was good during the training period.*

FOR MAX CADD

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This is to certify that **JAYA SURYA J** *-* **Final** *year in civil engineering Reg No.* **731218103002** *student of J.K.K. Munirajah college of technology at T.N.Palayam , Gobi (TK) , Erode (Dt) -638 506 completed the training course on work site at residential building at* **16/03/2022 to 30/04/2022** *. His conduct and character was good during the training period.*

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GOBI (Tk), ERODE (Dt).

AUTHORIZED SIGNATORY

ELECTRONICS AND COMMUNICATION ENGINEERING

- Ms. BABY SHALINI G, Ms. PRIYA R, Ms. PRIYA VM, Ms. PRIYADHARSINI A, Ms. SANTHIYA,MR.RAMACHANDHIRAN G, Mr. JAGADESH KUMAR G, Mr. SURENDHAR P Ms.NARMATHA M,, Ms. SABARI GAYATHRI A of Electronics and communication engineering undergone internship at of " ELITE SYSTEMS AND CONTROLS", Erode from 20.12.2021 to 31.12.2021.

- Mr. DEEPAK M, Ms. DHARANI M, Mr. JAI SRI ADITHYA T, Ms. KEERTHANA T of Electronics and communication engineering undergone internship at of " UNIVERSAL POWER SUPPLIES",Erode from 13.12.2021 to 24.12.2021.

- Mr. ARUNKUMAR M C, Mr. SUDEEP J of Electronics and communication engineering undergone internship at Universal Power Supplies, Department of R&D Centre, Bhavani from 13.12.2021 to 24.12.2021.

CERTIFICATES OF INTERNSHIP PROGRAMME

ELITE SYSTEMS AND CONTROLS
147, Dhana Complex, Mettur Road, ERODE-11.Ph.: 0424 2264234

DATE: 31.12.2021

CERTIFICATE

This is to certify that **Ms. BABY SHALINI G** student of Final Year B.E (ELECTRONICS AND COMMUNICATION ENGINEERING) from J.K.K. MUNIRAJAH COLLEGE OF TECHNOLOGY has completed her internship training on **IOT PRODUCT DESIGN** in our company from 20.12.2021 to 31.12.2021. During this project her workman ship is good.

ELITE SYSTEMS AND CONTROLS
147,Dhana Complex
Mettur Road, ERODE-11.
Ph:0422 -2264234

PRINCIPAL
JKK MUNIRAJAH COLLEGE
OF TECHNOLOGY
T.N. PALAYAM (Po)-638 506.
GOBI (Tk), ERODE (Dt).

Elite Systems

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J.K.K.MUNIRAJAH
COLLEGE OF TECHNOLOGY
T.N.PALAYAM (PO), GOBI (TK), ERODE (DT) – 638 506

ELITE SYSTEMS AND CONTROLS

147, Dhana Complex, Mettur Road, ERODE-11.Ph.: 0424 2264234

DATE: 31.12.2021

CERTIFICATE

This is to certify that **Ms. PRIYA R** student of Final Year B.E (ELECTRONICS AND COMMUNICATION ENGINEERING) from J.K.K. MUNIRAJAH COLLEGE OF TECHNOLOGY has completed her internship training on **IOT PRODUCT DESIGN** in our company from 20.12.2021 to 31.12.2021. During this project her workman ship is good.

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T.N. PALAYAM (Po)-638 506.
GOBI (Tk), ERODE (Dt).

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Mettur Road, ERODE-11.
Ph:0422 -2264234

ELITE SYSTEMS AND CONTROLS

147, Dhana Complex, Mettur Road, ERODE-11.Ph.: 0424 2264234

DATE: 31.12.2021

CERTIFICATE

This is to certify that Ms. PRIYA. V student of Final Year B.E (ELECTRONICS AND COMMUNICATION ENGINEERING) from J.K.K. MUNIRAJAH COLLEGE OF TECHNOLOGY has completed her internship training on **IOT PRODUCT DESIGN** in our company from 20.12.2021 to 31.12.2021. During this project her workman ship is good.

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ELITE SYSTEMS AND CONTROLS

147, Dhana Complex, Mettur Road, ERODE-11.Ph.: 0424 2264234

DATE: 31.12.2021

CERTIFICATE

This is to certify that **Ms. PRIYADHARSINI A** student of Final Year B.E (ELECTRONICS AND COMMUNICATION ENGINEERING) from J.K.K. MUNIRAJAH COLLEGE OF TECHNOLOGY has completed her internship training on **IOT PRODUCT DESIGN** in our company from 20.12.2021 to 31.12.2021. During this project her workman ship is good.

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Ph:0422 -2264234

ELITE SYSTEMS AND CONTROLS

147, Dhana Complex, Mettur Road, ERODE-11.Ph.: 0424 2264234

DATE: 31.12.2021

CERTIFICATE

This is to certify that **Ms. SANTHIYA A** student of Final Year B.E (ELECTRONICS AND COMMUNICATION ENGINEERING) from J.K.K. MUNIRAJAH COLLEGE OF TECHNOLOGY has completed her internship training on **IOT PRODUCT DESIGN** in our company from 20.12.2021 to 31.12.2021. During this project her workman ship is good.

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ELITE SYSTEMS AND CONTROLS

147, Dhana Complex, Mettur Road, ERODE-11 Ph.: 0424 2264234

DATE: 31.12.2021

CERTIFICATE

This is to certify that **Mr. RAMACHANDHIRAN G** student of Final Year B.E (ELECTRONICS AND COMMUNICATION ENGINEERING) from J.K.K. MUNIRAJAH COLLEGE OF TECHNOLOGY has completed internship training on **IOT PRODUCT DESIGN** in our company from 20.12.2021 to 31.12.2021. During this project his workman ship is good.

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147, Dhana Complex, Mettur Road, ERODE-11.Ph.: 0424 2264234

DATE: 31.12.2021

CERTIFICATE

This is to certify that **Mr. JAGADESH KUMAR G** student of Third Year B.E (ELECTRONICS AND COMMUNICATION ENGINEERING) from J.K.K. MUNIRAJAH COLLEGE OF TECHNOLOGY has completed internship training on **IOT PRODUCT DESIGN** in our company from 20.12.2021 to 31.12.2021. During this project his workman ship is good.

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GOBI (Tk), ERODE (Dt).

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DATE: 31.12.2021

CERTIFICATE

This is to certify that **Mr. SURENDHAR P** student of Third Year B.E (ELECTRONICS AND COMMUNICATION ENGINEERING) from J.K.K. MUNIRAJAH COLLEGE OF TECHNOLOGY has completed internship training on **IOT PRODUCT DESIGN** in our company from 20.12.2021 to 31.12.2021. During this project his workman ship is good.

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147, Dhana Complex, Mettur Road, ERODE-11.Ph.: 0424 2264234

DATE: 31.12.2021

CERTIFICATE

This is to certify that **Ms. NARMATHA M** student of Third Year B.E (ELECTRONICS AND COMMUNICATION ENGINEERING) from J.K.K. MUNIRAJAH COLLEGE OF TECHNOLOGY has completed her internship training on **IOT PRODUCT DESIGN** in our company from 20.12.2021 to 31.12.2021. During this project her workman ship is good.

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T.N.PALAYAM (PO), GOBI (TK), ERODE (DT) – 638 506

ELITE SYSTEMS AND CONTROLS

147, Dhana Complex, Mettur Road, ERODE-11.Ph.: 0424 2264234

DATE: 31.12.2021

CERTIFICATE

This is to certify that **Ms. SABARI GAYATHRI A** student of Third Year B.E (ELECTRONICS AND COMMUNICATION ENGINEERING) from J.K.K. MUNIRAJAH COLLEGE OF TECHNOLOGY has completed her internship training on **IOT PRODUCT DESIGN** in our company from 20.12.2021 to 31.12.2021. During this project her workman ship is good.

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GOBI (Tk), ERODE (Dt).

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Mettur Road, ERODE-11.
Ph:0422 -2264234

J.K.K.MUNIRAJAH
COLLEGE OF TECHNOLOGY
T.N.PALAYAM (PO), GOBI (TK), ERODE (DT) – 638 506

UNIVERSAL POWER SUPPLIES

Department of R & D Centre,
Varanapuram, Bhavani, Tamil Nadu 638301

Phone: 099421 07795
Website: www.qbro.in

Date: 24.12.2021

TO WHOM SO EVER IT MAY CONCERN

This is to certify that the student **Mr. DEEPAK M (Reg. No: 731218106002)** Department of Electronics and Communication Engineering Final Year from J.K.K Munirajah College of Technology, T.N.Palayam, Gobi, has satisfactorily completed his Internship on **DESIGN OF DC POWER SUPPLY** during the period of 13.12.2021 to 24.12.2021 under our guidance.

UNIVERSAL POWER SUPPLIES
Opp. Bhavani G.H.
BHAVANI - 638 301, Erode (D)
Cont: 88833 06663

Project Manager

For

Electronics R & D Manufacturing
Universal Power Supplies

PRINCIPAL
JKK MUNIRAJAH COLLEGE
OF TECHNOLOGY
T.N. PALAYAM (Po)-638 506.
GOBI (Tk), ERODE (Dt).

J.K.K.MUNIRAJAH
COLLEGE OF TECHNOLOGY
T.N.PALAYAM (PO), GOBI (TK), ERODE (DT) – 638 506

UNIVERSAL POWER SUPPLIES

Department of R & D Centre,
Varanapuram, Bhavani, Tamil Nadu 638301

Phone: 099421 07795
Website: www.qbro.in

Date: 24.12.2021

TO WHOM SO EVER IT MAY CONCERN

This is to certify that the student **Ms. DHARANI M (Reg. No: 731218106003)** Department of Electronics and Communication Engineering Final Year from J.K.K Munirajah College of Technology, T.N.Palayam, Gobi, has satisfactorily completed her Internship on **DESIGN OF DC POWER SUPPLY** during the period of 13.12.2021 to 24.12.2021 under our guidance.

UNIVERSAL POWER SUPPLIES
Opp. Bhavani G.H,
BHAVANI - 638 301, Erode (n.
Cont: 88833 9666.)

Project Manager

For

Electronics R & D Manufacturing
Universal Power Supplies

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OF TECHNOLOGY
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GOBI (Tk), ERODE (Dt).

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T.N.PALAYAM (PO), GOBI (TK), ERODE (DT) – 638 506

UNIVERSAL POWER SUPPLIES

Department of R & D Centre,
Varanapuram, Bhavani, Tamil Nadu 638301

Phone: 099421 07795
Website: www.qbro.in

Date: 24.12.2021

TO WHOM SO EVER IT MAY CONCERN

This is to certify that the student **Mr. JAI SRI ADITHYA T (Reg. No: 731218106002)** Department of Electronics and Communication Engineering Final Year from J.K.K Munirajah College of Technology, T.N.Palayam, Gobi, has satisfactorily completed his Internship on **DESIGN OF DC POWER SUPPLY** during the period of 13.12.2021 to 24.12.2021 under our guidance.

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Opp. Bhavani G.H.
BHAVANI - 638 301, Erode (D).
Cont: 88833 06663

For

Project Manager

UNIVERSAL POWER SUPPLIES

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GOBI (Tk), ERODE (Dt).

J.K.K.MUNIRAJAH
COLLEGE OF TECHNOLOGY

T.N.PALAYAM (PO), GOBI (TK), ERODE (DT) – 638 506

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Department of R & D Centre,
Varanapuram, Bhavani, Tamil Nadu 638301

Phone: 099421 07795
Website: www.qbro.in

Date: 24.12.2021

TO WHOM SO EVER IT MAY CONCERN

This is to certify that the student **Ms. KEERTHANA T (Reg.No:731218106002)** Department of Electronics and Communication Engineering Final Year from J.K.K Munirajah College of Technology, T.N.Palayam, Gobi, has satisfactorily completed her Internship on **DESIGN OF DC POWER SUPPLY** during the period of 13.12.2021 to 24.12.2021 under our guidance.

UNIVERSAL POWER SUPPLIES
Opp. Bhavani G.H.
BHAVANI - 638 301, Erode (D
Cont: 88833 06653

Project Manager

For

UNIVERSAL POWER SUPPLIES

Electronics R & D Manufacturing
Universal Power Supplies

PRINCIPAL
JKK MUNIRAJAH COLLEGE
OF TECHNOLOGY
T.N. PALAYAM (Po)-638 506.
GOBI (Tk), ERODE (Dt).

J.K.K.MUNIRAJAH
COLLEGE OF TECHNOLOGY
T.N.PALAYAM (PO), GOBI (TK), ERODE (DT) – 638 506

UNIVERSAL POWER SUPPLIES

Department of R & D Centre,
Varanapuram, Bhavani, Tamil Nadu 638301

Phone: 099421 07795
Website: www.qbro.in

Date: 26.03.2021

TO WHOM SO EVER IT MAY CONCERN

This is to certify that the student **Mr. ARUNKUMAR M C (731217106701)** Department of Electronics and Communication Engineering Final Year from J.K.K Munirajah College of Technology, T.N.Palayam, Gobi, has satisfactorily completed his Internship on **DESIGN OF DC POWER SUPPLY** during the period of 15.03.2021 to 26.03.2021 under our guidance.

UNIVERSAL POWER SUPPLIES
Opp. Bhavani G.H.
BHAVANI - 638 301, Erode (D).
Cont: 88833 06653

For

Project Manager

Electronics R & D Manufacturing
Universal Power Supplies

PRINCIPAL
JKK MUNIRAJAH COLLEGE
OF TECHNOLOGY
T.N. PALAYAM (Po)-638 506.
GOBI (Tk), ERODE (Dt).

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COLLEGE OF TECHNOLOGY
T.N.PALAYAM (PO), GOBI (TK), ERODE (DT) – 638 506

UNIVERSAL POWER SUPPLIES

Department of R & D Centre,
Varanapuram, Bhavani, Tamil Nadu 638301

Phone: 099421 07795
Website: www.gbro.in

Date: 26.03.2021

TO WHOM SO EVER IT MAY CONCERN

This is to certify that the student **Mr. SUDEEP J (731217106009)** Department of Electronics and Communication Engineering Final Year from J.K.K Munirajah College of Technology, T.N.Palayam, Gobi, has satisfactorily completed his Internship on **DESIGN OF DC POWER SUPPLY** during the period of 15.03.2021 to 26.03.2021 under our guidance.

UNIVERSAL POWER SUPPLIES
Opp. Bhavani G.H.
BHAVANI - 638 301, Erode (D
Cont: 88833 06653

Project Manager

For

Electronics R & D Manufacturing
Universal Power Supplies

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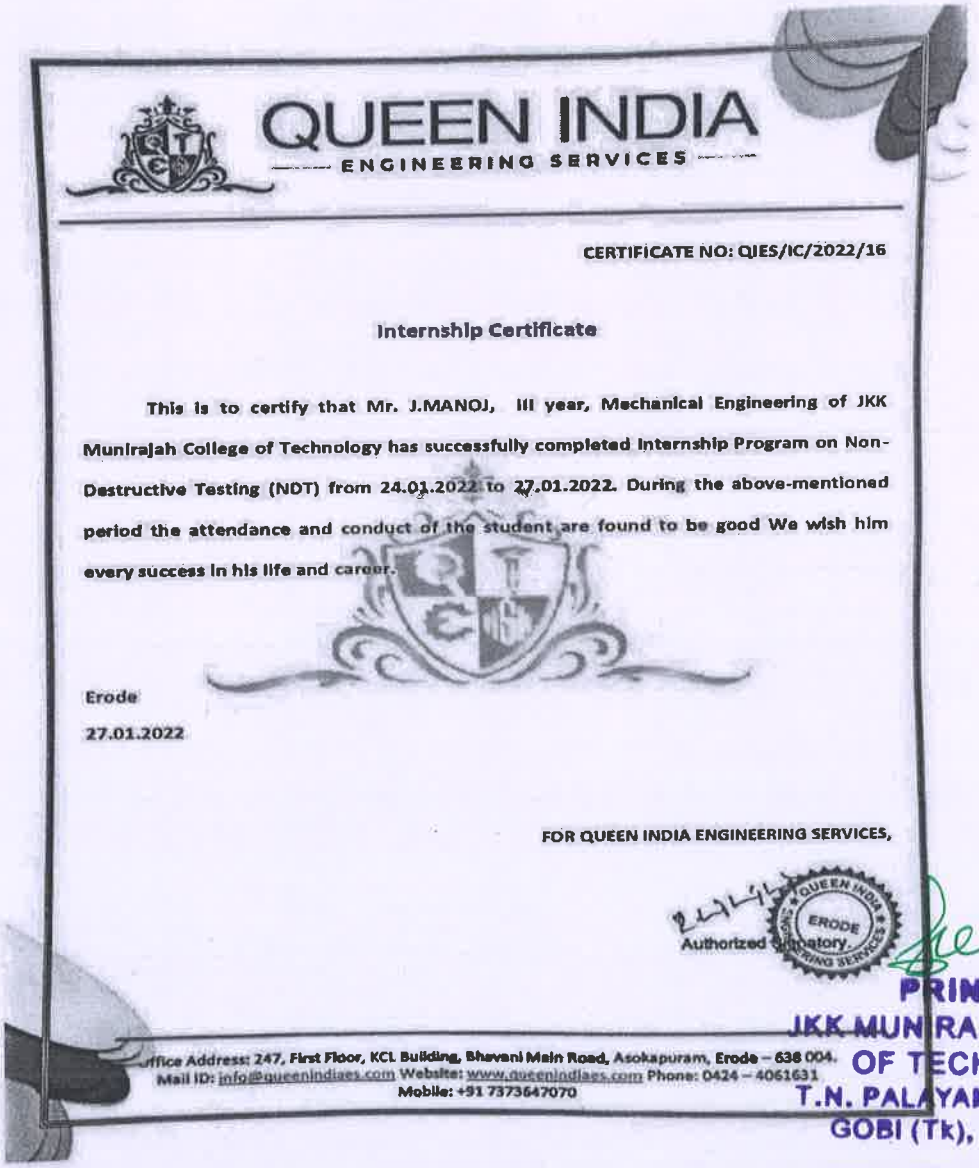
GOBI (Tk), ERODE (Dt).

J.K.K.MUNIRAJAH
COLLEGE OF TECHNOLOGY
T.N.PALAYAM (PO), GOBI (TK), ERODE (DT) – 638 506

MECHANICAL ENGINEERING

- Mr.J.MANOJ, Mr. K.SIVANANTH, Mr.P.VIGNESH of Mechanical engineering undergone internship at "QUEEN INDIA ENGINEERING SERVICES" Erode from 24.01.2022 to 27.01.2022.
- Mr. KUMARAVEL M, Mr. THIRUMURUGAN M, Mr. RAMESH B of Mechanical engineering undergone internship at "Periyasamy Hydraulic Equipments"Tirupur from 01.07.2021to 14.07.2021
- ARUNC, ESAKKIPANDIAN E, GOKULNATH M, GOWTHAMMANI S, KANNAN L, MANIKANDAN S, MOORTHY S, MUTHUPANDI K, NITHIYARASAN T, RAGUVARAN T, VELUSAMY A, VINITH V, GOWRIANNANDAN S, HARISANTH R, MADESH R, SANDEEPGANDHI S, SENTHILR, VIJAY A, ANISHKUMAR L, ARUNKUMAR S, BALAMURUGAN V, DHARMARAJA M, DINESH S, DINESHKUMAR R, KARTHI M, KAVINKUMAR M, MANOJ J, MANORANJITH K, MURUGESH M, SATHISKUMAR S, SHANKERGANESH K, SIVANANTH K, THAMARAISELVAN V, VIGNESH P, YOKESH E, DHINESHKUMAR B OF Mechanical engineering undergone internship at "QUEEN INDIA" Erode on 17.02.2022 .

CERTIFICATES OF INTERNSHIP PROGRAMME



QUEEN INDIA
ENGINEERING SERVICES

CERTIFICATE NO: QIES/IC/2022/16

Internship Certificate

This is to certify that Mr. J.MANOJ, III year, Mechanical Engineering of JKK Munirajah College of Technology has successfully completed Internship Program on Non-Destructive Testing (NDT) from 24.01.2022 to 27.01.2022. During the above-mentioned period the attendance and conduct of the student are found to be good We wish him every success in his life and career.

Erode
27.01.2022

FOR QUEEN INDIA ENGINEERING SERVICES,

Authorized Signatory.

Office Address: 247, First Floor, KCL Building, Bhavani Main Road, Asokapuram, Erode – 638 004.
Mail ID: info@queenindiaes.com Website: www.queenindiaes.com Phone: 0424 – 4061631
Mobile: +91 7373647070

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T.N. PALAYAM (Po)-638 506.
GOBI (Tk), ERODE (Dt).

QUEEN INDIA
ENGINEERING SERVICES

CERTIFICATE NO: QIES/IC/2022/17

Internship Certificate

This is to certify that Mr. K.SIVANANTH, III year, Mechanical Engineering of JKK Munirajah College of Technology has successfully completed Internship Program on Non-Destructive Testing (NDT) from 24.01.2022 to 27.01.2022. During the above-mentioned period the attendance and conduct of the student are found to be good We wish him every success in his life and career.

Erode

27.01.2022

FOR QUEEN INDIA ENGINEERING SERVICES,

Authorized Signatory.

Office Address: 247, First Floor, KCL Building, Bhavani Main Road, Asokapuram, Erode – 638 004.
Mail ID: info@queenindiaes.com Website: www.queenindiaes.com Phone: 0424 – 4061631
Mobile: +91 7373647070

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GOBI (Tk), ERODE (Dt).

QUEEN INDIA
ENGINEERING SERVICES

CERTIFICATE NO: QIES/IC/2022/18

Internship Certificate

This is to certify that Mr. P.VIGNESH, III year, Mechanical Engineering of JKK Munirajah College of Technology has successfully completed Internship Program on Non-Destructive Testing (NDT) from 24.01.2022 to 27.01.2022. During the above-mentioned period the attendance and conduct of the student are found to be good We wish him every success in his life and career.

Erode

27.01.2022

FOR QUEEN INDIA ENGINEERING SERVICES,

Authorized Signatory.

Office Address: 247, First Floor, KCL Building, Bhavani Main Road, Asokapuram, Erode – 638 004.
Mail ID: info@queenindiaes.com Website: www.queenindiaes.com Phone: 0424 – 4061631
Mobile: +91 7373647070

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GOBI (Tk), ERODE (Dt).

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COLLEGE OF TECHNOLOGY
T.N.PALAYAM (PO), GOBI (TK), ERODE (DT) – 638 506

PHE
PERIYASAMY HYDRAULIC EQUIPMENTS

Makers of Green India

CERTIFICATE

This is to certify that Mr. KUMARAVEL M (731220114003), Second year Mechanical Engineering student of J.K.K Munirajah College of Technology has successfully completed the in plant Training in our Company according to the MOU already made, He has visited our Company from 01.07.2021to 14.07.2021. During the Training period, his initiative and behavior was found to be Good. We wish him the best in all for his future endeavors and career.

Date: 14.06.2021

BRANCH MANAGER

PERIYASAMY HYDRAULIC EQUIPMENTS
24 - A/1, P. N. Road, Komathur - 638 103. District Tiruppur, Tamilnadu (INDIA) Tel. : +91 4294 264768 Fax : +91 4294 264588
Cell : +91 97865 58888, 97865 00188 Email : pheindia@yahoo.com Website : www.pheindia.com

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GOBI (Tk), ERODE (Dt).

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PHE
PERIYASAMY HYDRAULIC EQUIPMENTS

Makers of Green India

CERTIFICATE

This is to certify that Mr. THIRUMURUGAN M (731220114011), Second year Mechanical Engineering student of J.K.K Munirajah College of Technology has successfully completed the in plant Training in our Company, according to the MOU already made,He has visited our Company from from 01.07.2021 to 14.07.2021. During the Training period, his initiative and behavior was found to be Good. We wish him the best in all for his future endeavors and career.

Date: 14.06.2021

BRANCH MANAGER

PERIYASAMY HYDRAULIC EQUIPMENTS
24 - A/1, P.N. Road, Kunnathur - 638 103. District Tirupur, Tamilnadu (INDIA) Tel. : +91 4294 264788 Fax : +91 4294 264588
Cell : +91 97865 58888, 97865 00188 Email : pheindia@yahoo.com Website : www.pheindia.com

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1.3 LABORATORY COURSES

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GOBI (Tk), ERODE (Dt).

J.K.K.MUNIRAJAH COLLEGE OF TECHNOLOGY

T.N.PALAYAM (PO), GOBI (TK), ERODE (DT) – 638 506

LIST OF LABORATORY

COURSESACADEMIC YEAR

2021-22

DEPARTMENT OF AUTOMOBILE ENGINEERING

S.NO	SEMESTER	COURSE CODE	SUBJECT CODE	SUBJECT NAME
1	I	C107	GE8161	Problem Solving And Python Programming Laboratory
2		C108	BS8161	Physics And Chemistry Laboratory
3	II	C115	GE8261	Engineering Practices Laboratory
4		C116	BE8261	Basic Electrical, Electronics and Instrumentation Engineering Laboratory
5	III	C207	CE8381	Strength of Materials and Fluid Mechanics and Machinery Laboratory
6		C208	ME8381	Computer Aided Machine Drawing
7		C209	HS8381	Interpersonal Skills / Listening And Speaking
8	IV	C216	AT8411	Automotive Components Laboratory
9		C217	EC8382	Electronics and Microprocessors Laboratory
10	V	C307	AT8511	Automotive Electrical and Electronics Laboratory
11		C308	AT8512	Automotive Fuels and Lubricants Laboratory
12		C309	HS8581	Professional Communication
13	VI	C316	AT8611	Computer Aided Engine and Chassis Design Laboratory
14		C317	AT8612	Two and Three Wheelers Laboratory
15	VII	C407	AT8711	Engine Performance and Emission Testing Laboratory
17		C408	AT8712	Vehicle Maintenance Laboratory
18	VIII	C412	AT8811	Project Work

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GOBI (Tk), ERODE (Dt).

1	**Strength of Materials and Fluid Mechanics and Machinery Laboratory**	1. Tension test on a mild steel rod 2. Double shear test on Mild steel and Aluminium rods 3. Torsion test on mild steel rod 4. Impact test on metal specimen 5. Hardness test on metals - Brinnell and Rockwell Hardness Number 6. Deflection test on beams 7. Compression test on helical springs 8. Strain Measurement using Rosette strain gauge 9. Effect of hardening-Improvement in hardness and impact resistance of steels. 10. Tempering-Improvement Mechanical properties Comparison 11. Unhardened specimen 12. Quenched Specimen and 13. Quenched and tempered specimen. 14. Microscopic Examination of 15. Hardened samples and 16. Hardened and tempered samples	5 BATCH (6 STUDENTS/ BATCH) & 2 CYCLES	

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2		1. Design and drawing of piston, piston pin and piston rings and drawing of these components.		
	Computer Aided Machine Drawing	2. Design of connecting rod small end and big end, shank design, design of big end cap, bolts and drawing of the connecting rod assembly. 3. Design of crankshaft, balancing weight calculations. 4. Development of short and long crank arms, front end and rear end details, drawing of the crankshaft assembly. 5. Design and drawing of flywheel. 6. Ring gear design, drawing of the flywheel including the development of ring gear teeth. 7. Design and drawing of the inlet and exhaust valves. 8. Design of cam and camshaft, cam profile generation, drawing of cam and camshaft. 9. Design of combustion chamber	5 BATCH (6 STUDENTS/ BATCH) & 2 CYCLES	
3		1. Dismantling and study of Multi-cylinder Petrol Engine 2. Assembling of Multi-cylinder Petrol Engine		

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	Laboratory	3. Dismantling and study of Multi-cylinder Diesel Engine. 4. Assembling of Multi-cylinder Diesel Engine.	& 2 CYCLES	
		5. Study of petrol engine fuel system 6. Study of diesel engine fuel system 7. Study and measurement of light and heavy commercial Vehicle Frame 8. Study, dismantling and assembling of front and rear Axles 9. Study, dismantling and assembling of differential 10. Study, dismantling and assembling of Clutch 11. Study, dismantling and assembling of Gear Box 12. Study of steering system		
4		1. Study of International and National standards for fuels and lubricants. 2. Study of Octane and Cetane Number of fuels. 3. ASTM distillation test of liquid fuels 4. Aniline Point test of diesel 5. Calorific value of liquid fuel.		

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	Automotive Fuels and Lubricants Laboratory	6. Calorific value of gaseous fuel. 7. Reid vapour pressure test. 8. 8. Flash and Fire points of petrol and diesel. 9. Copper strip Corrosion Test 10. Cloud & Pour point Test.	5 BATCH (6 STUDENTS/ BATCH) & 2 CYCLES
		11. Temperature dependence of viscosity of lubricants & Fuels by Redwood Viscometer. 12. Viscosity Index of lubricants & Fuels by Saybolt Viscometer 13. Ash content and Carbon Residue Test 14. Drop point of grease and mechanical penetration in grease.	
		1.	
6	TWO AND THREE WHEELERS LABORATORY	1. Performance test of a two wheeler using chassis dynamometer. 2. Performance test on shock absorber 3. Performance test on coil spring. 4. Two wheeler chain test 5. Brake and Clutch adjustment as per specification. 6. Dismantling and assembling of two wheeler gear box and finding gear ratios 7. Dismantling and assembling of three wheeler box and	5 BATCH (6 STUDENTS/ BATCH)& 2 CYCLES

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		finding gear ratios 8. Three wheeler brake and clutch play adjustment 9. Dismantling and assembling of three wheeler steering system. 10. Study of three wheeler chassis frame and power transmission system.	
7	ENGINE PERFORMANCE AND EMISSION TESTING LABORATORY	1. Study of hydraulic, electrical and eddy current dynamometers 2. Valve timing and port timing diagrams Performance and emission test on two wheeler SI engine 4. Performance and emission test on automotive multi-cylinder SI engine 5. Performance and emission test on automotive multi-cylinder CI engine 6. Retardation test on I.C. Engines. 7. Heat balance test on automotive multi-cylinder SI engine 8. Heat balance test on automotive multi-cylinder CI engine 9. Morse test on multi-cylinder SI engine 10. Engine cylinder pressure measurement P-θ and P-V diagrams for IC engine with piezo-electric pick up, charge amplifier, angle encoder and data acquisition system.	5 BATCH (6 STUDENTS/ BATCH) & 2 CYCLES

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		11. Motoring test for indicated power.	
8	VEHICLE MAINTENANCE LABORATORY	1. Minor and major tune up of gasoline and diesel engines 2. Calibration of Fuel pump 3. Engine fault diagnosis using scan tool 4. Fault diagnosis and service of transmission system 5. Fault diagnosis and service of driveline system 6. Fault diagnosis and service of braking system 7. Fault diagnosis and service of suspension system 8. Fault diagnosis and service of steering system 9. Fault diagnosis and service of Electrical system like battery, starting system, charging system, lighting system etc 10. Fault diagnosis and service of vehicle air conditioning system 11. Practice the following: i. Adjustment of pedal play in clutch, brake, hand brake lever and steering wheel play. ii. Air bleeding from hydraulic brakes, air bleeding of diesel fuel system. iii. Wheel bearings tightening and adjustment. iv. Adjustment of	5 BATCH (6 STUDENTS/ BATCH) & 2 CYCLES

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		head lights beam. 7. Removal and fitting of tire andtube.		

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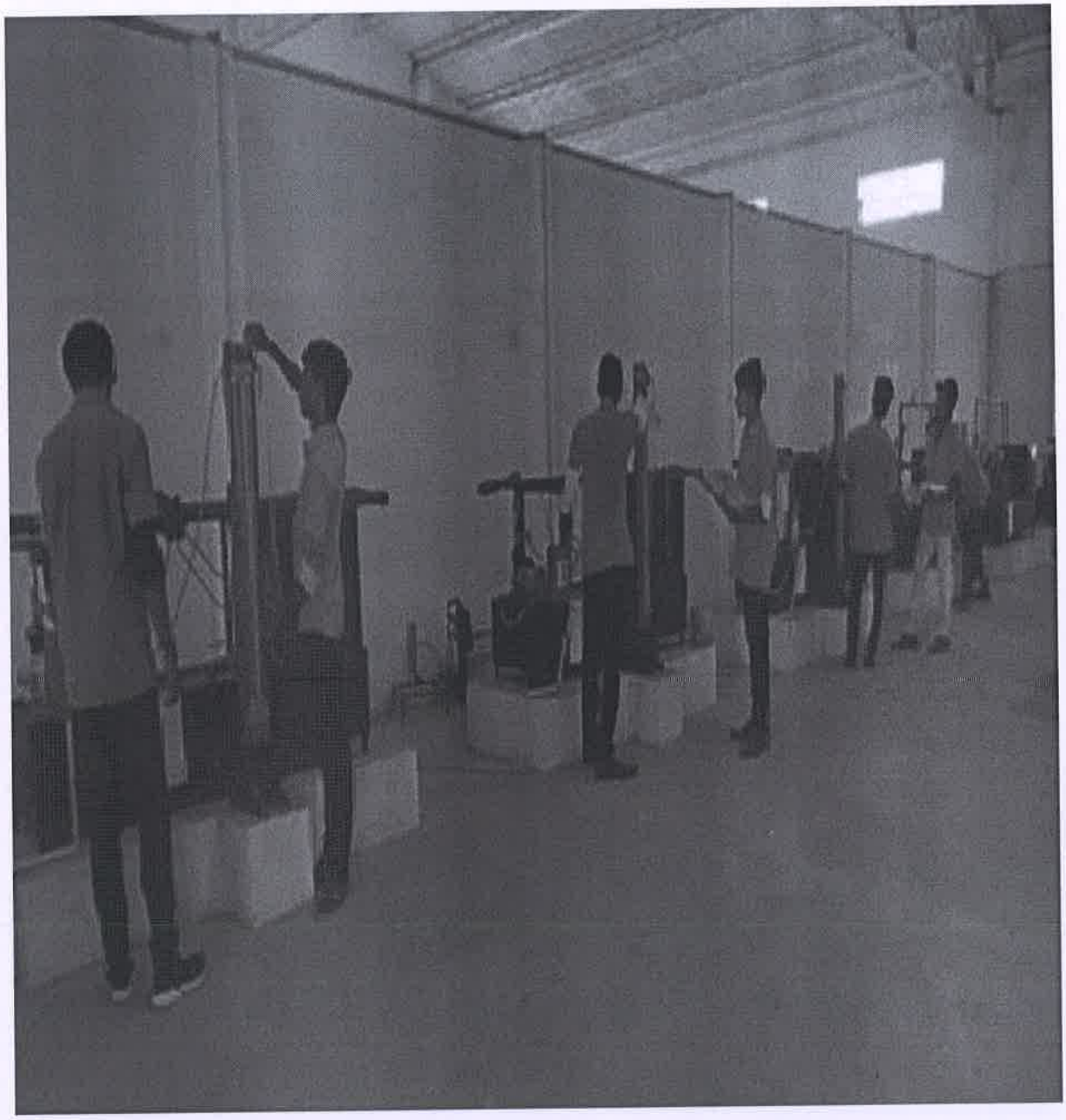

STRENGTH OF MATERIALS AND FLUID MECHANICS AND MACHINERY LABORATORY

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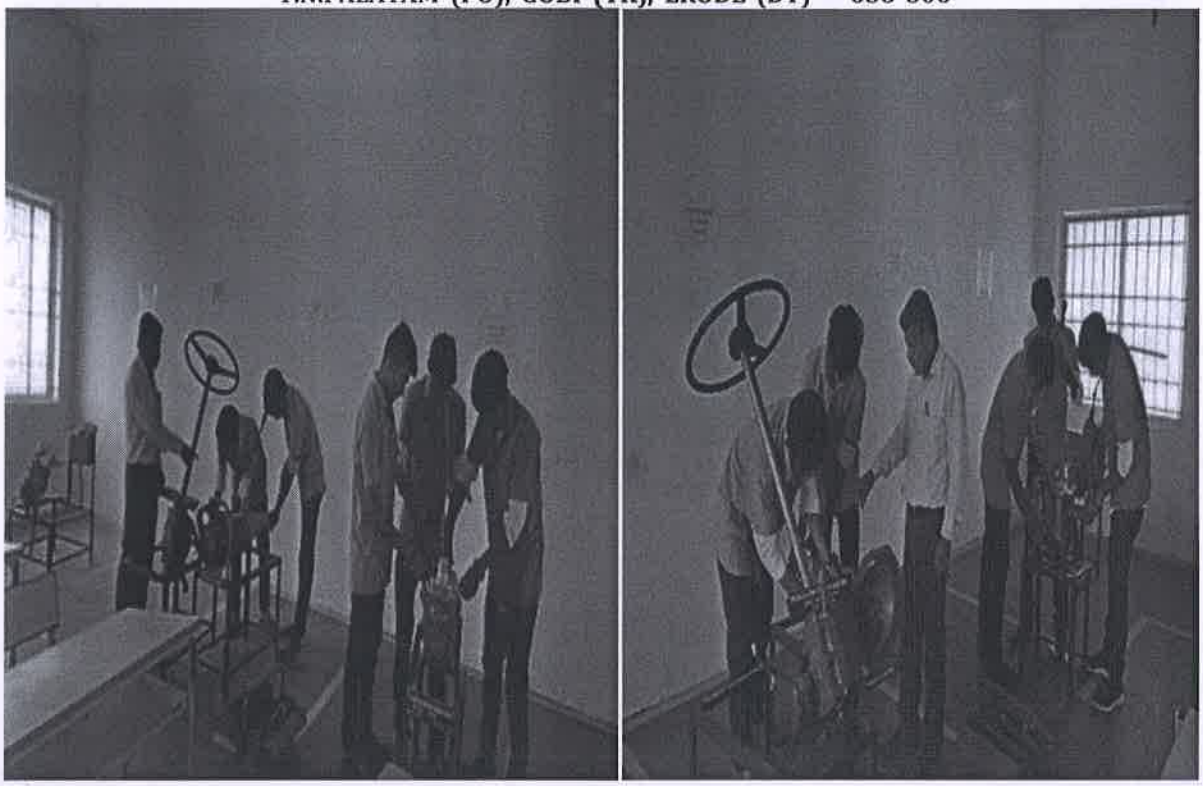
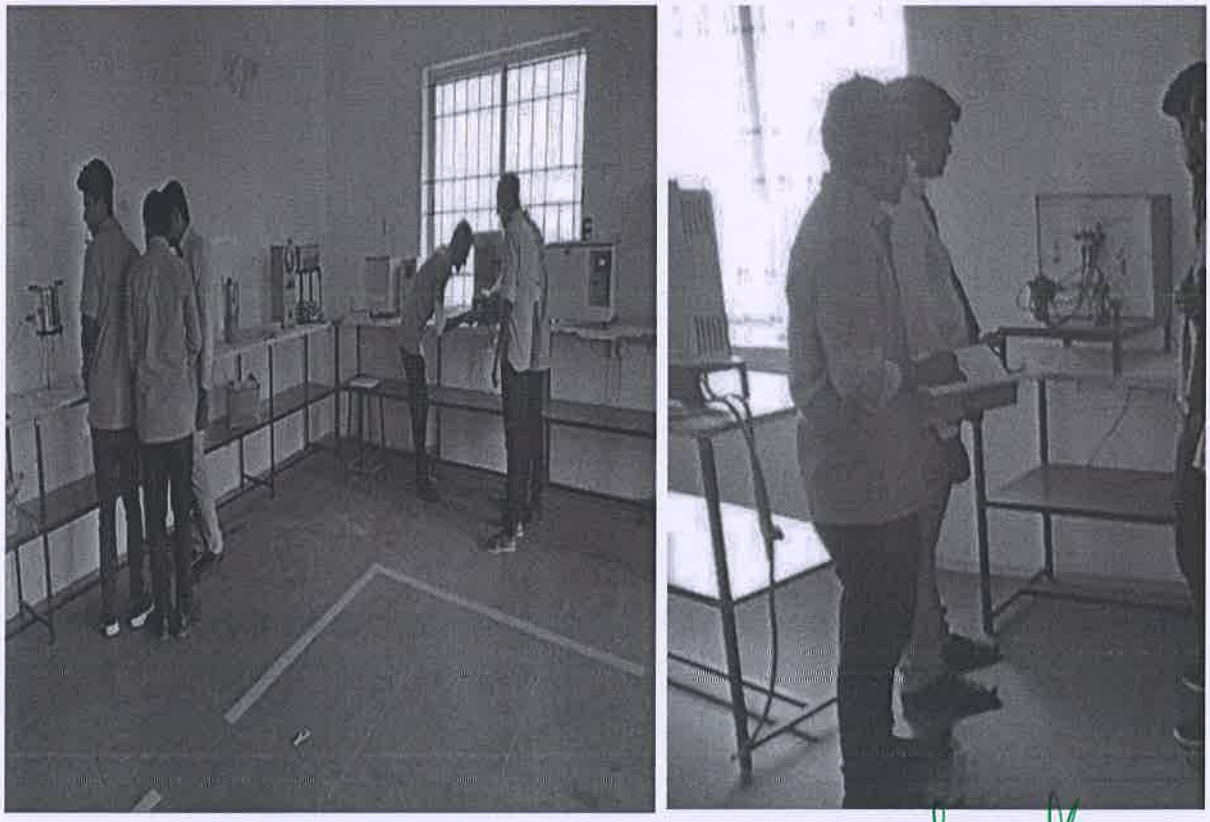


AUTOMOTIVE COMPONENTS LABORATORY



AUTOMOTIVE FUELS AND LUBRICANTS LABORATORY

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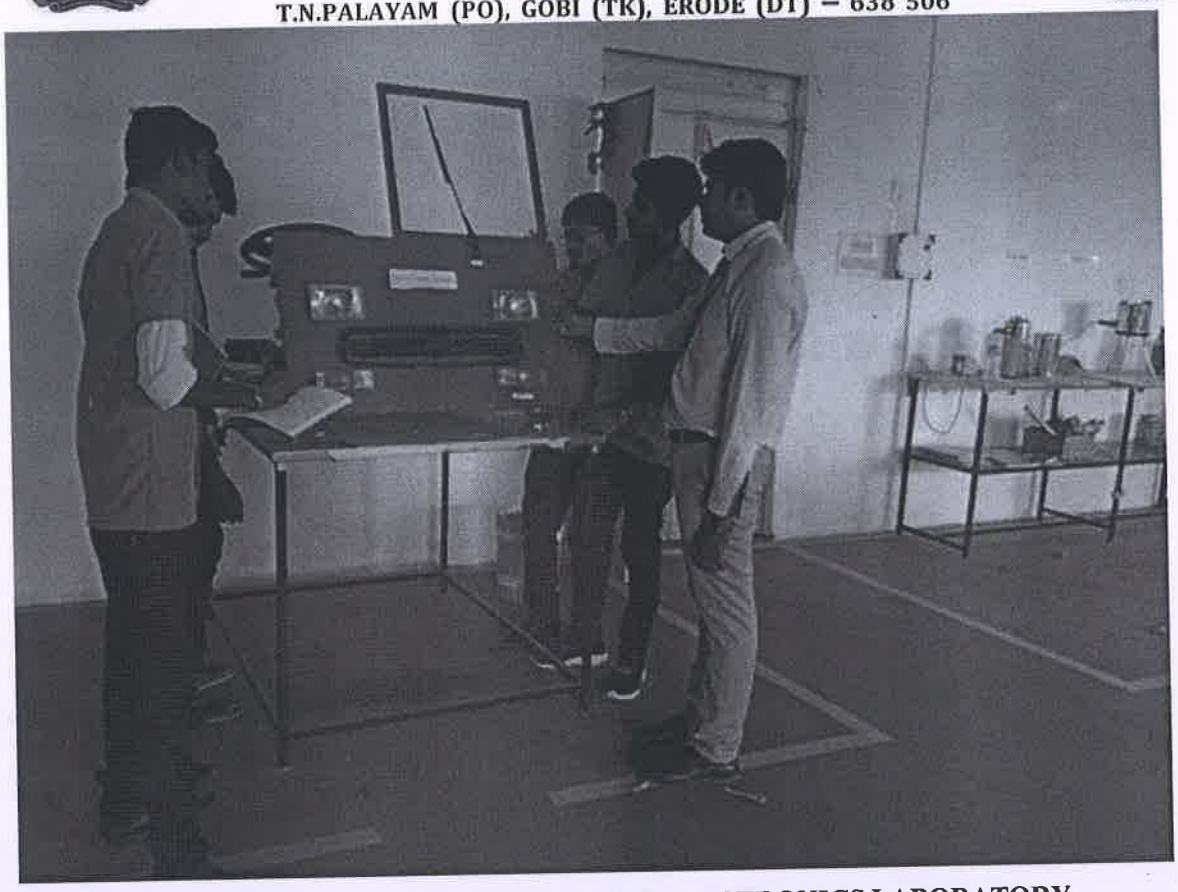

AUTOMOTIVE ELECTRICAL AND ELECTRONICS LABORATORY

COMPUTER AIDED ENGINE AND CHASSIS DESIGN LABORATORY

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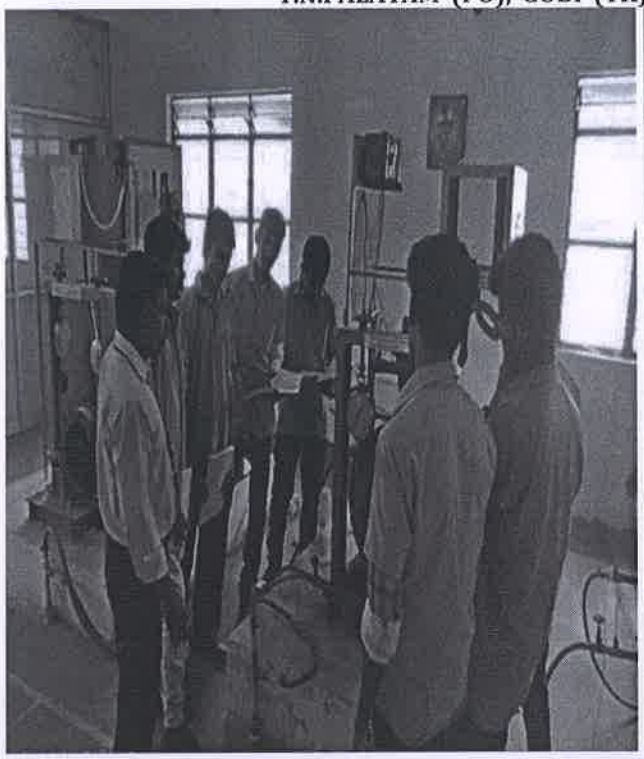

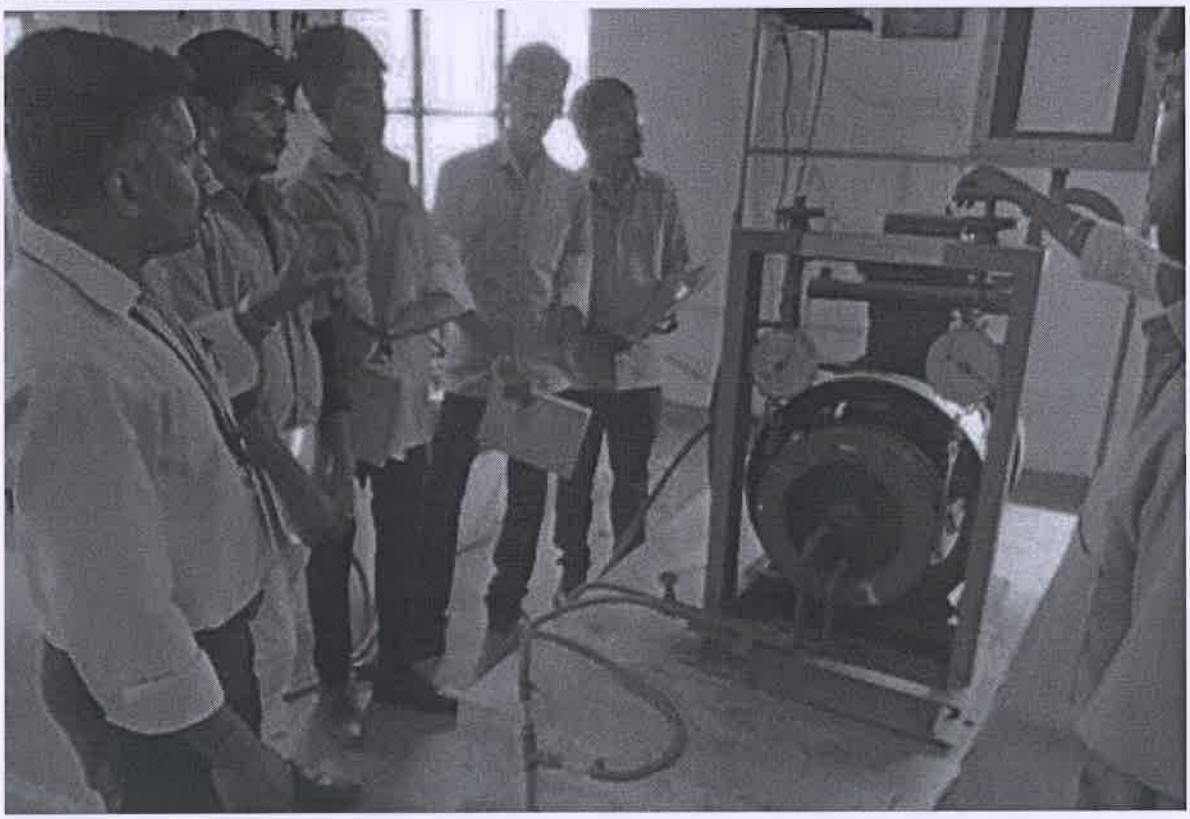

ENGINE PERFORMANCE AND EMISSION TESTING LABORATORY

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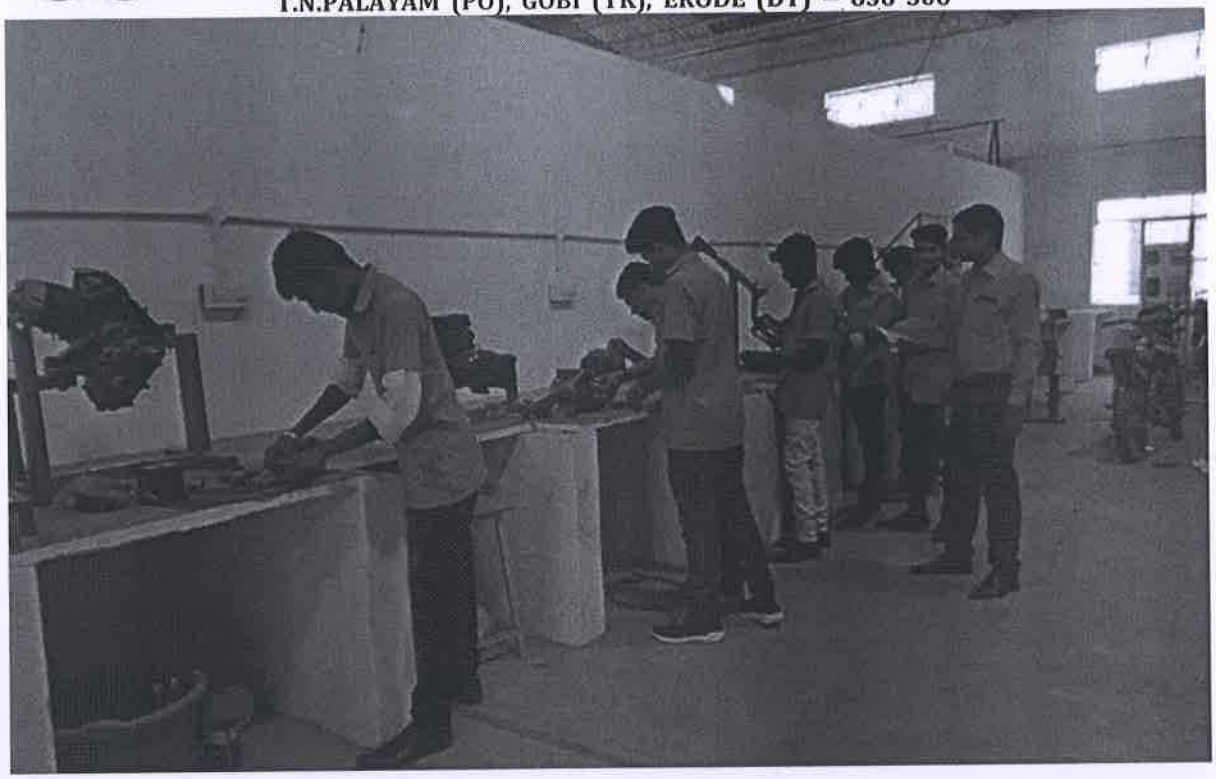
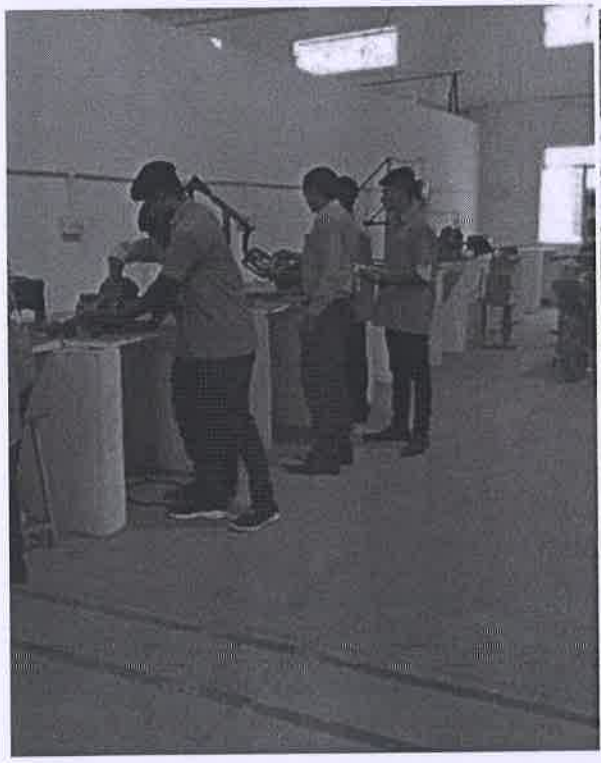
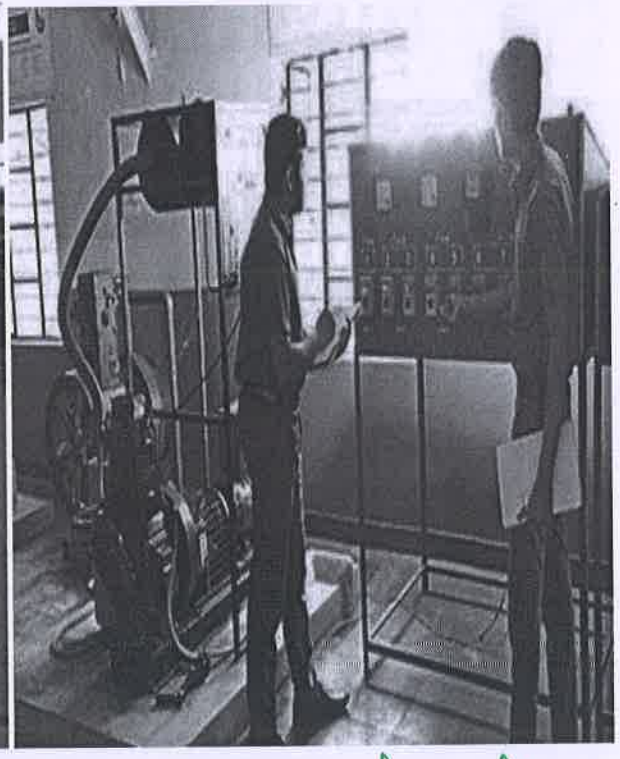


TWO AND THREE WHEELERS LABORATORY





VEHICLE MAINTENANCE LABORATORY

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LIST OF LABORATORY COURSES

ACADEMIC YEAR 2021-22

DEPARTMENT OF CIVIL ENGINEERING

S.NO	SEMESTER	COURSE CODE	SUBJECT CODE	SUBJECT NAME
1	I	C107	GE8161	Problem Solving And Python Programming Laboratory
2		C108	BS8161	Physics And Chemistry Laboratory
3	II	C115	GE8261	Engineering Practices Laboratory
4		C116	CE8211	Computer Aided Building Drawing
5	III	C207	CE8311	Construction Materials Laboratory
6		C208	CE8361	Surveying Laboratory
7		C209	HS8381	Interpersonal Skills / Listening And Speaking
8	IV	C216	CE8481	Strength of Materials Laboratory
9		C217	CE8461	Hydraulic Engineering Laboratory
10		C218	HS8461	Advanced Reading And Writing
11	V	C307	CE8511	Soil Mechanics Laboratory
12		C308	CE8512	Water And Waste Water Analysis Laboratory
13		C309	CE8513	Survey Camp
14	VI	C316	CE8611	Highway Engineering Laboratory
15		C317	CE8612	Irrigation & Environmental Engineering Drawing
16		C318	HS8581	Professional Communication
17	VII	C406	CE8711	Creative and innovative project (Activity Based-Subject Related)
18		C407	CE8712	Industrial Training (4 weeks during VI Semester –Summer)
19	VIII	C410	CE8811	Project Work

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S. No	LAB NAME	LIST OF EXPERIMENTS	BATCH SIZE (STUDENTS)	REMARKS
1	CONSTRUCTION MATERIALS LABORATORY	**I. TEST ON FINE AGGREGATES** 1. Grading of fine aggregates 2. Test for specific gravity and test for bulk density 3. Compacted and loose bulk density of fine aggregate **II. TEST ON COARSE AGGREGATE** 1. Determination of impact value of coarse aggregate 2. Determination of elongation index 3. Determination of flakiness index 4. Determination of aggregate crushing value of coarse aggregate **III. TEST ON CONCRETE** 1. Test for Slump 2. Test for Compaction factor 3. Test for Compressive strength - Cube & Cylinder 4. Test for Flexural strength **IV. TEST ON BRICKS AND BLOCKS** 1. Test for compressive strength of bricks and blocks 2. Test for Water absorption of bricks and blocks 3. Determination of Efflorescence of bricks 4. Test on tiles	5 BATCHS (6 STUDENTS PER BATCH) & 2 CYCLES	

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2.	SURVEYING LABORATORY	**CHAIN SURVEY** 1. Study of chains and its accessories, Aligning, Ranging, Chaining and Marking Perpendicularoffset 2. Setting out works – Foundation marking using tapes single Room and Double Room **COMPASS SURVEY** 3. Compass Traversing – Measuring Bearings & arriving included angles **LEVELLING - STUDY OF LEVELS AND LEVELLING STAFF** 4. Fly levelling using Dumpy level &Tilting level 5. Check levelling **THEODOLITE - STUDY OF THEODOLITE** 6. Measurements of horizontal angles by reiteration and repetition and vertical angles 7. Determination of elevation of an object using single plane method when base is accessible/inaccessible **TACHEOMETRY – TANGENTIAL SYSTEM – STADIA SYSTEM** 8. Determination ofTacheometric Constants 9. Heights and distances by stadia Tacheometry 10. Heights and distances by Tangential Tacheometry **TOTAL STATION** - Study of Total Station, Measuring Horizontal and vertical angles	5 BATCHS (6 STUDENTS PER BATCH) & 2 CYCLES	

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		11. Traverse using Total stationand Area of Traverse 12. Determination of distance and difference in elevation between two inaccessible points using Total station.		

3	**STRENGTH OF MATERIALS LABORATORY**	**LIST OF EXPERIMENTS** 1. Tension test on steel rod 2. Compression test on wood 3. Double shear test on metal 4. Torsion test on mild steelrod 5. Impact test on metal specimen (Izod and Charpy) 6. Hardness test on metals (Rockwell and BrinellHardness Tests) 7. Deflection test on metal beam 8. Compression test on helical spring 9. Deflection test on carriage spring	5 BATCHS (6 STUDENTS PER BATCH) & 2 CYCLES	-

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4.	**HYDRAULIC ENGINEERING LABORATORY**	**LIST OF EXPERIMENTS** **A. Flow Measurement** 1. Calibration of Rotameter 2. Calibration of Venturimeter /Orificemeter 3. Bernoulli's Experiment **B. Losses in Pipes** 4.Determination of friction factor in pipes 5. Determination of min orlosses **C. Pumps** 6. Characteristics of Centrifugal pumps 7. Characteristics of Gear pump 8. Characteristics of Submersible pump 9. Characteristics of Reciprocating pump **D. Turbines** 10. Characteristics of Pelton wheel turbine 11. Characteristics of Francis turbine/Kaplan turbine **E. Determination ofMeta centric height** 12. Determination of Meta centric height of floating bodies	5 BATCHS (6 STUDENTS PER BATCH) & 2 CYCLES	

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5	**SOIL MECHANICS LABORATORY**	**1. DETERMINATION OF INDEX PROPERTIES** a. Specific gravity of soil solids b. Grain size distribution – Sieveanalysis c. Grain size distribution - Hydrometer analysis d. Liquid limit and Plastic limittests Shrinkage limit and Differential free swell tests **2. DETERMINATION OFINSITU DENSITY ANDCOMPACTION CHARACTERISTICS** a. Field density Test (Sand replacement method and corecutter method) b. Determination of moisture –density relationship using standard Proctor compactiontest. c. Determination of relative density (Demonstration only) **3. DETERMINATION OFENGINEERING PROPERTIES**	5 BATCHS (6 STUDENTS PER BATCH)& 2 CYCLES	

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		a. Permeability determination(constant head and falling head methods) b. One dimensional consolidation test (Determination of Co-efficient of consolidationonly) c. Direct shear test incohesionless soil d. Unconfined compression testin cohesive soil e. Laboratory vane shear test incohesive soil f. Tri-axial compression test incohesionless soil (Demonstration only) g. California Bearing Ratio Test.		
6.	**WATER AND WASTE WATER ANALYSIS LABORATORY**	1. Determination of pH, Turbidity and conductivity 2. Determination of Hardness 3. Determination of Alkalinityand Acidity 4. Determination of Chlorides 5. Determination of Phosphatesand Sulphates 6. Determination of iron andfluoride 7. Determination of	5 BATCHS (6 STUDENTS PER BATCH)& 2 CYCLES	

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		Optimum Coagulant dosage 8. Determination of residual chlorine and available chlorine in bleaching powder 9. Determination of Oil, and Grease 10. Determination of suspended, settleable, volatile and fixed solids 11. Determination Dissolved Oxygen and BOD for the given sample 12. Determination of COD forgiven sample 13. Determination of SVI of Biological sludge and microscopic examination 14. Determination of MPN index of given water sample		

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7.	**HIGHWAY ENGINEERING LABORATORY**	**I TEST ON AGGREGATES** a) Specific Gravity b) Los AngelesAbrasion Test c) Water Absorption ofAggregates **II TEST ON BITUMEN** a) Specific Gravity of Bitumen b) Penetration Test c) Viscosity Test d) Softening Point Test e) Ductility Test **III TESTS ONBITUMINOUS MIXES** f) Stripping Test g) Determination of Binder Content h) Marshall Stability andFlow Values **IV DEMONSTRATION OF ANY ONE FIELD TESTING EQUIPMENT LIKE SKID RESISTANCE TESTER/ BENKELMAN BEAM**	5 BATCHS (6 STUDENTS PER BATCH) & 2 CYCLES	-

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CONSTRUCTION MATERIALS LABORATORY

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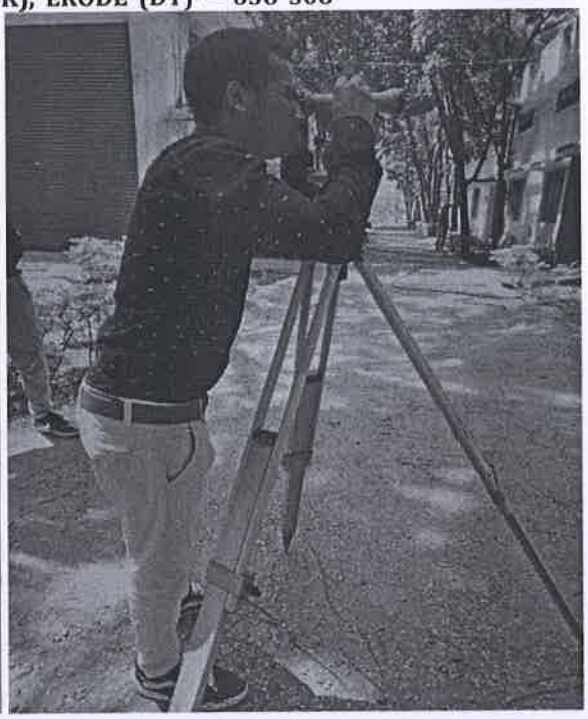

SURVEYING LABORATORY

HIGHWAY ENGINEERING LABORATORY

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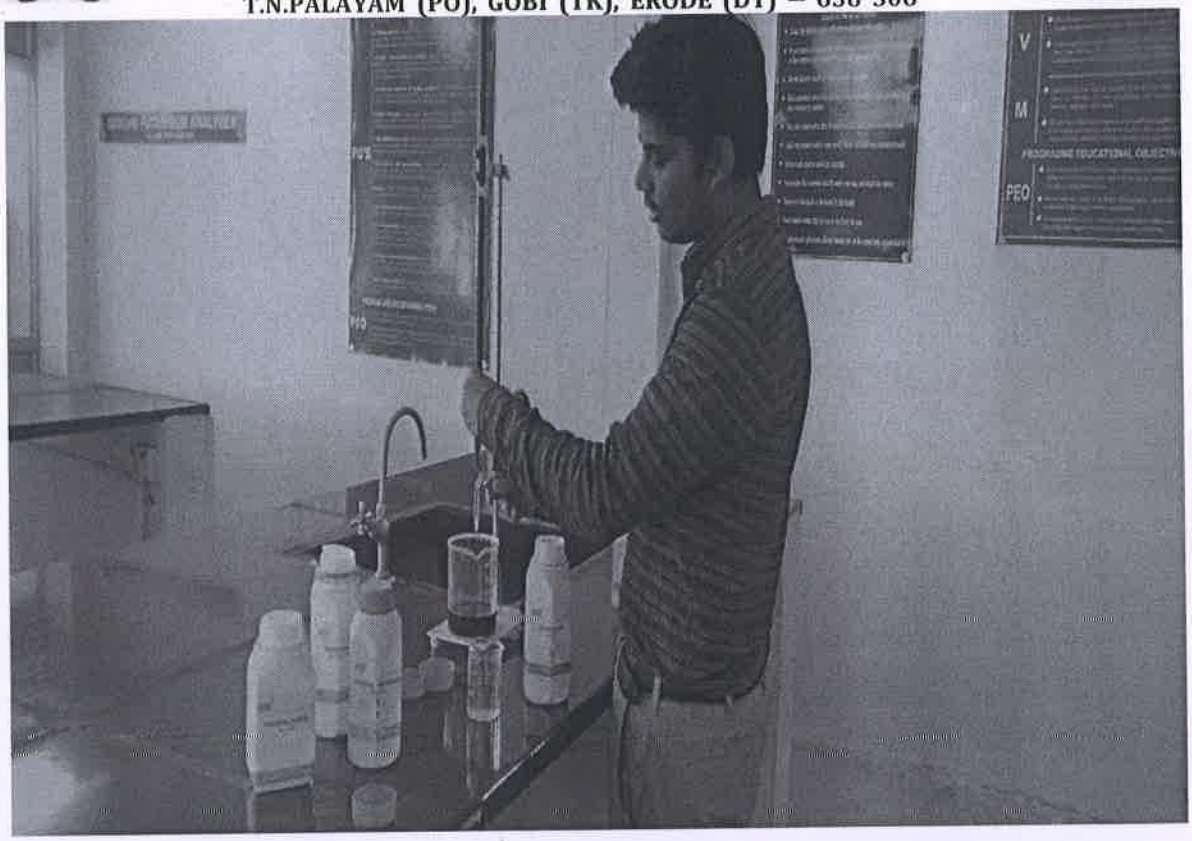
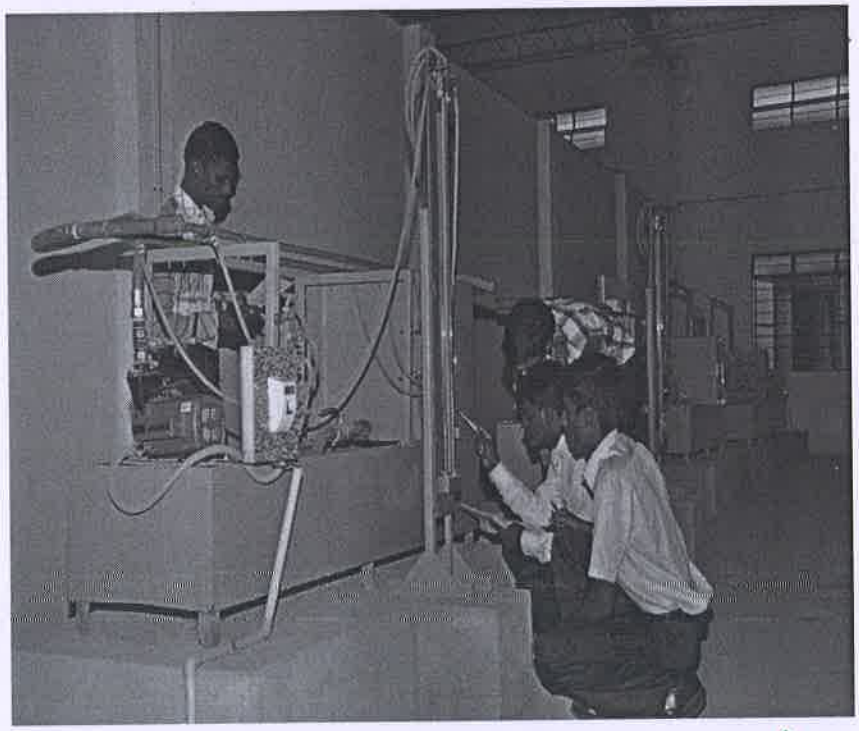


WATER AND WASTE WATER ANALYSIS LABORATORY



HYDRAULIC ENGINEERING LABORATORY

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LIST OF LABORATORY COURSES

ACADEMIC YEAR 2021-22

DEPARTMENT OF COMPUTER SCIENCE ENGINEERING

S.NO	SEMESTER	COURSE CODE	SUBJECT CODE	SUBJECT NAME
1	I	C107	GE8161	Problem Solving and PythonProgramming Laboratory
2		C108	BS8161	Physics and Chemistry Laboratory
3	II	C115	GE8261	Engineering Practices Laboratory
4		C116	CS8261	C Programming Laboratory
5	III	C206	CS8381	Data Structures Laboratory
6		C207	CS8383	Object Oriented Programming Laboratory
7		C208	CS8382	Digital Systems Laboratory
8		C209	HS8381	Interpersonal Skills/Listening &Speaking
9	IV	C216	CS8481	Database Management SystemsLaboratory
10		C217	CS8461	Operating Systems Laboratory
11		C218	HS8461	Advanced Reading and Writing
12	V	C307	EC8681	Microprocessors and Microcontrollers Laboratory
13		C308	CS8582	Object Oriented Analysis and DesignLaboratory
14		C309	CS8581	Networks Laboratory
15	VI	C316	CS8661	Internet Programming Laboratory
16		C317	CS8662	Mobile Application Development Laboratory
17		C318	CS8611	Mini Project
18	VII	C407	CS6711	Security Laboratory
19		C408	CS6712	Grid and Cloud Computing Laboratory
20	VIII	C411	CS6811	Project Work

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S.No	LAB NAME	LIST OF EXPERIMENTS	BATCH SIZE (STUDENTS)	REMARKS
1	**Data Structures Laboratory**	1. Array implementation of Stack and Queue ADTs 2. Array implementation of List ADT 3. Linked list implementation of List, Stack and Queue ADTs 4. Applications of List, Stack and Queue ADTs 5. Implementation of Binary Trees and operations of Binary Trees 6. Implementation of Binary Search Trees 7. Implementation of AVL Trees 8. Implementation of Heaps using Priority Queues. 9. Graph representation and Traversal algorithms 10. Applications of Graphs 11. Implementation of searching and sorting algorithms 12. Hashing – any two collision techniques	5 BATCH (6 STUDENTS/ BATCH) & 2 CYCLES	
		1. Develop a Java application to generate Electricity bill. Create a class with the following members: Consumer no., consumer name, previous month reading, current month reading, type of EB connection (i.e domestic or	5 BATCH (6 STUDENTS/ BATCH)	

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2	**Object Oriented Programming Laboratory**	commercial). Compute the bill amount using the following tariff. 2. If the type of the EB connection is domestic, calculate the amount to be paid as follows. 3. First 100 units - Rs. 1 per unit 4. 101-200 units - Rs. 2.50 per unit 5. 201 -500 units - Rs. 4 per unit 6. 501 units - Rs. 6 per unit 7. If the type of the EB connection is commercial, calculate the amount to be paid as follows: 8. First 100 units - Rs. 2 per unit 9. 101-200 units - Rs. 4.50 per unit 10. 201 -500 units - Rs. 6 per unit 11. 501 units - Rs. 7 per unit 12. Develop a java application to implement currency converter (Dollar to INR, EURO to INR, Yen to INR and vice versa), distance converter (meter to KM, miles to KM and vice versa) , time converter (hours to minutes, seconds and vice versa) using packages. 13. Develop a java applicationwith Employee class with Emp_name, Emp_id, Address,Mail_id, Mobile_noas members. Inherit the classes, Programmer	& 2 CYCLES	

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		Assistant Professor, Associate Professor and Professor from employee class. Add Basic Pay (BP) as the member of all the inherited classes with 97% of BP as DA, 10 % of BP as HRA, 12% of BP as PF, 0.1% of BP for staff club fund. Generate pay slips for the employees with their gross and net salary 14. Design a Java interface for ADT Stack. Implement this interface using array. Provide necessary exception handling in both the implementations 15. Write a program to perform string operations using Array List. Write functions for the following 16. Append - add at end 17. Insert – add at particular index 18. Search 19. List all string starts with given letter 20. Write a Java Program to create an abstract class named Shape that contains two integers and an empty method named print Area(). Provide three classes named Rectangle, Triangle and Circle such that each one of the classes extends the class Shape. Each one of the classes contains only the method print Area () that prints the area of the given shape		

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		21. Write a Java program to implement user defined exception handling. 22. Write a Java program that reads a file name from the user, displays information about whether the file exists, whether the file is readable, or writable, the type of file and the length of the file in bytes. 23. Write a java program that implements a multi-threaded application that has three threads. First thread generates a random integer every 1 second and if the value is even, second thread computes the square of the number and prints. If the value is odd, the third thread will print the value of cube of the number. 24. Write a java program to find the maximum value from the given type of elements using a generic function. 25. Design a calculator using event-driven programming paradigm of Java with the following options. a. Decimal manipulations b. Scientific manipulations 26. Develop a mini project for any application using Java concepts.		

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3	**Database Management**	1. Data Manipulation Commands for inserting, deleting, updating and retrieving	5 BATCH (6 STUDENTS/ BATCH)	
	Systems Laboratory	Tables and Transaction Control statements 2. Database Querying – Simple queries, Nested queries, Sub queries and Joins 3. Views, Sequences, Synonyms 4. Database Programming: Implicit and Explicit Cursors 5. Procedures and Functions 6. Triggers 7. Exception Handling 8. Database Design using ER modeling, normalization and Implementation for any application 9. Database Connectivity with Front End Tools 10. Case Study using real life database applications	& 2 CYCLES	
4	**Operating**	1. Basics of UNIX commands 2. Write programs using the following system calls of UNIX operating system fork, exec, getpid, exit, wait, close, stat, opendir, readdir 3. Write C programs to simulate UNIX commands like cp, ls, grep, etc. 4. Shell Programming 5. Write C programs to implement the various CPU Scheduling Algorithms 6. Implementation of	5 BATCH	

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	Systems Laboratory	Semaphores 7. Implementation of Shared memory and IPC	STUDENTS/ BATCH) & 2 CYCLES	
		7. Bankers Algorithm for Deadlock Avoidance 8. 9. Implementation of Deadlock Detection Algorithm 9. Write C program to implement Threading & Synchronization Applications 10. Implementation of the following Memory Allocation Methods for fixed partition 11. a) First Fit b) Worst Fit c) Best Fit 12. Implementation of Paging Technique of Memory Management 13. Implementation of the following Page Replacement Algorithms 14. a) FIFO b) LRU c) LFU 15. Implementation of the various File Organization Techniques 16. Implementation of the following File Allocation Strategies a) Sequential b) Indexed c) Linked		
5		1. Identify a software system that needs to be developed. 2. Document the Software Requirements Specification (SRS) for the identified system. 3. Identify use cases and develop the Use Case model. 4. Identify the conceptual classes and develop a Domain Model and	5 BATCH (6 STUDENTS/ BATCH)	

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	Object Oriented Analysis and Design Laboratory	also derive a Class Diagram from that. 5. Using the identified	& 2 CYCLES	
		scenarios, find the interaction between objects and represent them using 6. UML Sequence and Collaboration Diagrams 7. Draw relevant State Chart and Activity Diagrams for the same system. 8. Implement the system as per the detailed design 9. Test the software system for all the scenarios identified as per the usecase diagram 10. Improve the reusability and maintainability of the software system by applying appropriate design patterns. 11. Implement the modified system and test it for various scenarios		
6		1. Learn to use commands like tcp dump, netstat, ifconfig, nslookup and trace route. Capture ping and traceroute PDUs using a network protocol analyzer and examine. 2. Write a HTTP web client program to download a web page using TCP sockets. 3. Applications using TCP sockets like: 4. Echo client and echo	5 BATCH (6 STUDENTS/ BATCH) & 2 CYCLES	

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	Networks Laboratory	server 5. Chat 6. File Transfer 7. 4.Simulation of DNS using UDP sockets 8. Write a code simulating ARP /RARP protocols		
		9. Study of Network simulator (NS) and Simulation of Congestion Control Algorithms using NS 10. Study of TCP/UDP performance using Simulation tool 11. Simulation of Distance Vector/ Link State Routing algorithm 12. Performance evaluation of Routing protocols using Simulation tool 13. Simulation of error correction code (like CRC).		
7	**Internet Programmin g Laboratory**	1. Create a web page with the following using HTML a. To embed a map in a web page b. To fix the hot spots in that map c. Show all the related information when the hot spots are clicked. 2. Create a web page with the following a. Cascading style sheets. b. Embedded style sheets. c. Inline style sheets. Use our college information for the web pages 3. Validate the Registration, user login, user profile and payment by credit card pages using JavaScript	5 BATCH (6 STUDENTS/ BATCH) & 2 CYCLES	

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		4. Write programs in Java using Servlets: i To invoke servlets from HTML forms ii. Session tracking using hidden form fields and Session tracking for a hit count 5. Write programs in Java to create three-tier applications using servlets for conducting on-line examination for displaying student mark list. Assume that student information is available in a database which has been stored in a database server. 6. Install TOMCAT web server. Convert the static web pages of programs into dynamic web pages using servlets (or JSP) and cookies. Hint: Users information (user id, password, credit card number) would be stored in web.xml. Each user should have a separate Shopping Cart 7. Redo the previous task using JSP by converting the static web pages into dynamic web pages. Create a database with user information and books information. The books catalogue should be dynamically loaded from the database. 8. Create and save an XML document at the server, which contains 10 users Information. Write a Program,		

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		which takes user Id as an input and returns the User details by taking the user information from the XML document		
		i. Validate the form using PHP regular expression. ii. PHP stores a form data into database 9. Write a web service for finding what people think by asking 500 people's opinion for any consumer product.		
8	**Mobile Application Development Laboratory**	1. Develop an application that uses GUI components, Font and Colours 2. Develop an application that uses Layout Managers and event listeners 3. Write an application that draws basic graphical primitives on the screen. 4. Develop an application that makes use of databases 5. Develop an application that makes use of Notification Manager 6. Implement an application that uses Multi-threading 7. Develop a native application that uses GPS location information 8. Implement an application that writes data to the SD card 9. Implement an application that creates an alert upon receiving a message 10. Write a mobile	5 BATCH (6 STUDENTS/ BATCH) & 2 CYCLES	

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		application that makes use of RSS feed 11. Develop a mobile application to send an email		
		12. Develop a Mobile application for simple needs (Mini Project)		
9	CLOUD COMPUTING LABORATORY	1. Install Virtualbox/VMware Workstation with different flavours of linux or windows OS on top of windows7 2. Install a C compiler in the virtual machine created using virtual box and execute Simple Programs 3. Install Google App Engine. Create hello world app and other simple web applications using python/java 4. Use GAE launcher to launch the web applications 5. Simulate a cloud scenario using CloudSim and run a scheduling algorithm that is not present in CloudSim. 6. Find a procedure to transfer the files from one virtual machine to another virtual machine 7. Find a procedure to launch virtual machine using trystack (Online Openstack Demo Version) 8. Install Hadoop single node cluster and run simple applications like wordcount.	5 BATCH (6 STUDENTS/ BATCH) & 2 CYCLES	

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		1. Perform encryption, decryption using the following substitution techniques 2. (i) Ceaser cipher, (ii) playfair cipher iii) Hill Cipher iv) Vigenere		
10	**SECURITY LABORATORY**	cipher 3. Perform encryption and decryption using following transposition techniques 4. i) Rail fence ii) row & Column Transformation 5. Apply DES algorithm for practical applications 6. Apply AES algorithm for practical applications. 7. Implement RSA Algorithm using HTML and JavaScript 8. Implement the Diffie-Hellman Key Exchange algorithm for a given problem. 9. Calculate the message digest of a text using the SHA-1 algorithm 10. Implement the SIGNATURE SCHEME - Digital Signature Standard. 11. Demonstrate intrusion detection system (ids) using any tool eg. Snort or any other s/w.	9 BATCH (6 STUDENTS/ BATCH) & 2 CYCLES	

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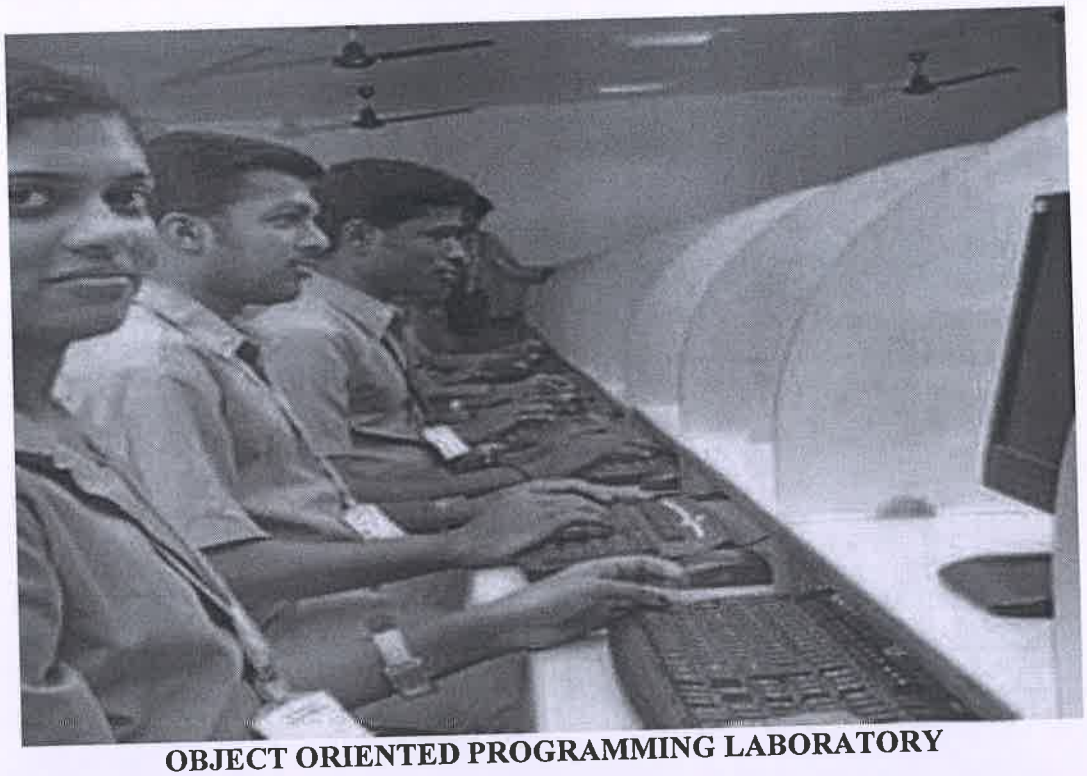
PHOTO GALLERY



OBJECT ORIENTED PROGRAMMING LABORATORY

CLOUD COMPUTING LABORATORY

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DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING
M.E -POWER ELECTRONICS & DRIVES

LIST OF LABORATORY COURSES

ACADEMIC YEAR 2021-22

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

S.NO	SEMESTER	COURSE CODE	SUBJECT CODE	SUBJECT NAME
1	I	C107	GE8161	Problem Solving And Python Programming Laboratory
2		C108	BS8161	Physics And Chemistry Laboratory
3	II	C115	GE8261	Engineering Practices Laboratory
4		C116	EE8261	Electric Circuits Laboratory
5	III	C207	EC8311	Electronics Laboratory
6		C208	EE8311	Electrical Machines Laboratory – I
7	IV	C215	EE8411	Electrical Machines Laboratory – II
8		C216	EE8461	Linear and Digital Integrated Circuits Laboratory
9		C217	EE8412	Technical Seminar
10	V	C307	EE8511	Control and Instrumentation Laboratory
11		C308	HS8581	Professional Communication
12		C309	CS8383	Object Oriented Programming Laboratory
13	VI	C315	EE8661	Power Electronics and Drives Laboratory
14		C316	EE8681	Microprocessors and Microcontrollers Laboratory
15		C317	EE8611	Mini Project
16	VII	C407	EE6711	Power System Simulation Laboratory
17		C408	EE6712	Comprehension
18	VIII	C412	EE6811	Project Work

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S.No	LAB NAME	LIST OF EXPERIMENTS	BATCH SIZE (STUDENTS)	REMARKS
1	**Power Electronics Circuits Lab**	1. Study of switching characteristics of Power electronic switches with and without Snubber (i) IGBT (ii) MOSFET 2. Modeling and system simulation of basic electric circuits using MATLAB-SIMULINK/SCILAB 3. DC source fed resistive load and Resistive-inductive load 4. DC source fed RLC load for different damping conditions 5. DC source fed DC motor load 6. Modeling and System simulation of basic power electronic circuits using MATLAB-SIMULINK/SCILAB 7. AC Source with Single Diode fed Resistive and Resistive-Inductive Load 8. AC source with Single SCR fed Resistive and Resistive-Inductive Load 9. Modeling and System Simulation of SCR based	2 BATCHS (6 STUDENTS PER BATCH) & 2 CYCLES	

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		full converter with different types of load using MATLAB-Simulink/SCILAB 10. Full converter fed resistive load 11. Full converter fed Resistive- Back Emf (RE) load at different firing angles 12. Full Converter fed Resistive-Inductive Load at different firing angles 13. Full converter fed DC motor load at different firing angles 14. 14. Circuit Simulation of Voltage Source Inverter and study of spectrum analysis with and without filter using MATLAB/SCILAB		
2	**Electrical Drives Laboratory**	1. Speed control of Converter fed DC motor. 2. Speed control of Chopper fed DC motor. 3. V/f control of three-phase induction motor. 4. Micro controller based speed control of Stepper motor.		

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		5. Speed control of BLDC motor. 6. DSP based speed control of SRM motor. 7. Voltage Regulation of three-phase Synchronous Generator. 8. Cyclo converter fed Induction motor drives 9. Single phase Multi Level Inverter based induction motor drive 10. Study of power quality analyzer	2 BATCHS (6 STUDENT SPER BATCH) & 2 CYCLES	

DEPARTMENT OF COMPUTER SCIENCE ENGINEERING

M.E –COMPUER SCIENCE ENGINEERING

LIST OF LABORATORY COURSES

ACADEMIC YEAR 2021-22

MASTER OF ENGINEERING

DEPARTMENT OF COMPUTER SCIENCE ENGINEERING

S.NO	SEMESTER	COURSE CODE	SUBJECT CODE	SUBJECT NAME
1	I	C107	CP5161	Data Structures Laboratory
2	II	C114	CP5261	Data Analytics Laboratory
3		C115	CP5281	Term Paper Writing and Seminar
4	III	C204	CP5311	Project Work Phase – I
5	IV	C205	CP5411	Project Work Phase – II

S.No	LAB NAME	LIST OF EXPERIMENTS	BATCH SIZE (STUDENTS)	REMARKS
		1.Implementation of Merge Sort and Quick Sort-Analysis		

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1	DATA STRUCTURE LABORATORY	2. Implementation of a Binary Search Tree 3.Red-Black Tree Implementation 4. Heap Implementation 5. Fibonacci Heap Implementation 6. Graph Traversals 7.SpanningTree Implementation 8.Shortest Path Algorithms (Dijkstra's algorithm, Bellmann Ford Algorithm) 9. Implementation of Matrix Chain Multiplication 10. Activity Selection and Huffman Coding Implementation.	2 BATCHS (6 STUDENT SPER BATCH) & 2 CYCLES
2	DATA ANALYTICS LABORATORY	1.Install, configure and run Hadoop and HDFS 2. Implement word count / frequency programs using Map Reduce 3. Implement an MR program that processes a weather dataset R 4. Implement Linear and logistic Regression 5. Implement SVM / Decision tree classification techniques 6. Implement clustering techniques	2 BATCHS (6 STUDENTS PER BATCH) & 2 CYCLES

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		7. Visualize data using any plotting framework 8. Implement an application that stores big data in Hbase / MongoDB / Pig using Hadoop	

DEPARTMENT OF MECHANICAL ENGINEERING

S.No	LAB NAME	LIST OF EXPERIMENTS	BATCH SIZE (STUDENTS)
1.	MANUFACTURING TECHNOLOGY LABORATORY – I	1. Taper Turning 2. External Thread cutting 3. Internal Thread Cutting 4. Eccentric Turning 5. Knurling 6. Square Head Shaping 7. Hexagonal Head Shaping 8. Fabrication of simple structural shapes using Gas Metal Arc Welding 9. Joining of plates and pipes using Gas Metal Arc Welding/ Arc Welding /Submerged arc welding 10. Preparation of green sand moulds Manufacturing of simple sheet metal components using shearing and bending operations. 11. Manufacturing of sheet metal components using metal spinning on a lathe	5 BATCHS (2 STUDENTS PER BATCH) & 2 CYCLES
2.	MACHINES LABORATORY	1. Load test on DC Shunt & DC Series motor 2. O.C.C & Load characteristics of DC Shunt and DC Series generator 3. Speed control of DC shunt motor(Armature, Field control) 4. Load test on single phase	5 BATCHES

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		transformer 5. O.C & S.C Test on a single phase transformer 6. Regulation of an alternator by EMF & MMF methods. 7. V curves and inverted V curves of synchronous Motor 8. Load test on three phase squirrel cage Induction motor 9. Speed control of three phase slip ring Induction Motor 10. Study of DC & AC Starters	
3	**MANUFACTURING TECHNOLOGY LABORATORY – II**	1. Contour milling using vertical milling machine 2. Spur gear cutting in milling machine 3. Helical Gear Cutting in milling machine 4. Gear generation in hobbing machine 5. Gear generation in gear shaping machine 6. Plain Surface grinding 7. Cylindrical grinding 8. Tool angle grinding with tool and Cutter Grinder 9. Measurement of cutting forces in Milling / Turning Process. 10. CNC Part Programming	5 BATCHS (6 STUDENTSPER BATCH) & 2 CYCLES
4.	**STRENGTH OF MATERIALS LABORATORY**	STRENGTH OF MATERIALS 1. Tension test on a mild steel rod 2. Double shear test on Mild steel and Aluminium rods 3. Torsion test on mild steel rod 4. Impact test on metal specimen 5. Hardness test on metals - Brinnell and Rockwell Hardness Number 6. Deflection test on beams 7. Compression test on helical springs 8. Strain Measurement using Rosette strain gauge 9. Effect of hardening-Improvement in hardness and impact resistance of	

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		steels.	
		FLUIDMECHANICSAND MACHINES LABORATORY 1. Determination of the Coefficient of discharge of given Orifice meter. 2. Determination of the Coefficient of discharge of given Venturimeter.	
		a. Calculation of the rate of flow using Rota meter. 3. Determination of friction factor for a given set of pipes. 4. Conducting experiments and drawing the characteristic curves of centrifugal pump/ 5. submergible pump 6. Conducting experiments and drawing the characteristic curves of reciprocating pump. 7. Conducting experiments and drawing the characteristic curves of Gear pump. 8. Conducting experiments and drawing the characteristic curves of Pelton wheel. 9. Conducting experiments and drawing the characteristics curves of Francis turbine. 10. Conducting experiments and drawing the characteristic curves of	

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		Kaplan turbine	
		1. a) Study of gear parameters. 2. b) Experimental study of velocity ratios of simple, compound, Epicyclic and differential gear trains. 3. a) Kinematics of Four Bar, Slider Crank, Crank Rocker, Double crank, Double rocker, Oscillating cylinder Mechanisms. 4. b) Kinematics of single and double universal joints.	
		5. a) Determination of Mass moment of inertia of Fly wheel and Axle system. 6. b)Determination of Mass Moment of Inertia of axisymmetric bodies using Turn Table apparatus. c) Determination of Mass Moment of Inertia using bifilar suspension and compound pendulum. 7. Motorized gyroscope –Study of gyroscopic effect and couple.Governor -Determination of range sensitivity, effort etc., for Watts, Porter, Proell, and Hartnell Governors. 8. Cams – Cam profile drawing, Motion curves and study of jump phenomenon 9. a) Single degree of freedom Spring Mass System	

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		–Determination of natural Frequency and verification of Laws of springs – Damping coefficient determination. b) Multi degree freedom suspension system –Determination of influence coefficient. c) Determination of torsional natural frequency of single and Double Rotor systems. Undamped and Damped Natural frequencies. d) Vibration absorber – Tuned vibration absorber.		
		10. Vibration of Equivalent Spring mass system – undamped and damped vibration. 11. Whirling of shafts – Determination of critical speeds of shafts with concentrated loads. a) Balancing of rotating masses. b) Balancing of reciprocating masses. c) Transverse vibration of Free-Free beam – with and without concentrated masses. d) Forced Vibration of Cantilever beam – Mode shapes and natural frequencies. 12. Determination of transmissibility ratio using vibrating table.		

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THERMAL ENGINEERING LABORATORY-I

1. I.C. ENGINE LAB
2. Valve Timing and Port Timing diagrams.
3. Actual p-v diagrams of IC engines.
4. Performance Test on 4 – stroke Diesel Engine.
5. Heat Balance Test on 4 – stroke Diesel Engine.
6. Morse Test on Multi- cylinder Petrol Engine.
7. Retardation Test on a Diesel Engine.
8. Determination of Flash Point and Fire Point of various fuels/lubricants.

STEAM LAB

1. Study on Steam Generators and Turbines.
2. Performance and EnergyBalance
3. Test on a Steam Generator.
4. Performance and Energy Balance Test on Steam Turbine

HEAT TRANSFER LAB

1. Thermal conductivity measurement using guarded plate apparatus.
2. Thermal conductivity measurement of pipe insulation using lagged pipe apparatus.
3. Determination of heat transfer coefficient under natural convection from a vertical cylinder.
4. Determination of heat transfer coefficient under forced convection from a tube.
5. Determination of Thermal conductivity of composite wall.
6. Determination

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		of Thermal conductivity of insulating powder. 7. Heat transfer from pin-fin apparatus (natural & forced convection modes) 8. Determination of Stefan – Boltzmann constant. 9. Determination of emissivity of a grey surface. 10. Effectiveness of Parallel / counter flow heat exchanger. REFRIGERATION AND AIR CONDITIONING LAB 1. Determination of COP of a refrigeration system 2. Experiments on Psychrometric processes 3. Performance test on a reciprocating air compressor 4. Performance test in a HC Refrigeration System 5. Performance test in a fluidized cooling tower	
		1. Calibration and use of measuring instruments – Vernier caliper, micrometer, Vernier height gauge - using gauge blocks 2. Calibration and use of measuring instruments – depth micrometer, bore gauge, telescopic gauge 3. Measurement of linear dimensions using Comparators 4. Measurement of angles using bevel protractor and sine bar 5. Measurement of screw thread parameters – Screw thread Micrometers and Three wire method 6. '(floating	

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		carriage micrometer) 7. Measurement of gear parameters – disc micrometers, gear tooth vernier caliper 8. Measurement of features in a prismatic component using Coordinate Measuring Machine (CMM) 9. Programming of CNC Coordinate Measuring Machines for repeated measurements of identical components 10. Non-contact (Optical) measurement using Toolmaker's microscope / Profile projector and Video 11. measurement system 12. Measurement of Surface finish in components 13. Manufactured using various processes (turning, milling, grinding, etc.,) using stylus based instruments. 14. Machine tool metrology – Level tests using precision level; Testing of straightness of a machine tool guide way using Autocollimator, spindle tests. 15. 112.Measurement of force, torque and temperature	
		1. Introduction of 3D Modelling software 2. Creation of 3D assembly model of following machine elements using 3D Modelling software 3. Flange Coupling 4. Plummer Block 5. Screw Jack 6. Lathe Tailstock	

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		7. Universal Joint 8. Machine Vice 9. Stuffing box 10. Crosshead 11. Safety Valves 12. Non-return valves 13. Connecting rod 14. Piston 15. Crankshaft 16. 2. Manual Part Programming. 17. Part Programming - CNC Machining Centre a) Linear Cutting. 18. b) Circular cutting. c) Cutter Radius Compensation. d) Canned Cycle Operations. 19. Part Programming - CNC Turning Centre a) Straight, Taper and Radius Turning. b) Thread Cutting. c) Rough and Finish Turning Cycle. d) Drilling and Tapping Cycle. 20. Computer Aided Part Programming 21. CL Data and Post process generation using CAM packages. 22. Application of CAPP in		

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		Machining and Turning Centre.		
5.	SIMULATIOMN AND ANALYSIS	**SIMULATION MATLAB** basics, Dealing with matrices, Graphing-Functions of one variable and two variables 1. Use of Matlab to solve simple problems in vibration 2. Mechanism Simulation using Multi body Dynamic software analysis 3. Force and Stress analysis using link elements in Trusses, cables etc. 4. Stress and deflection analysis in beams with different support conditions. 5. Stress analysis of flat plates and simple shells. 6. Stress analysis of axi – symmetric components. 7. Thermal stress and heat transfer analysis of plates. 8. Thermal stress analysis of cylindrical shells. 9. Vibration analysis of spring-mass systems. 10. Model analysis of Beams. 11. Harmonic, transient and spectrum analysis of simple systems	1 SYSTEM PER STUDENTS	-
		1. Assembly language programming of 8085 2. Division – Sorting – Code Conversion. 3. Stepper motor interface. 4. Traffic light interface. 5. Speed control of DC motor.	5 BATCHS (2 STUDENTS	

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6.	MECHATRONICS LABORATORY	6. Study of various types of transducers. 7. Study of hydraulic, pneumatic and electro-pneumatic circuits. 8. Modeling and analysis of basic hydraulic, pneumatic and electrical circuits using Software. 9. Study of PLC and its applications. 10. Study of image processing technique.	PER BATCH) & 2 CYCLES	

PHOTO GALLERY

FLUID MECHANICS AND MACHINERY LABORATORY

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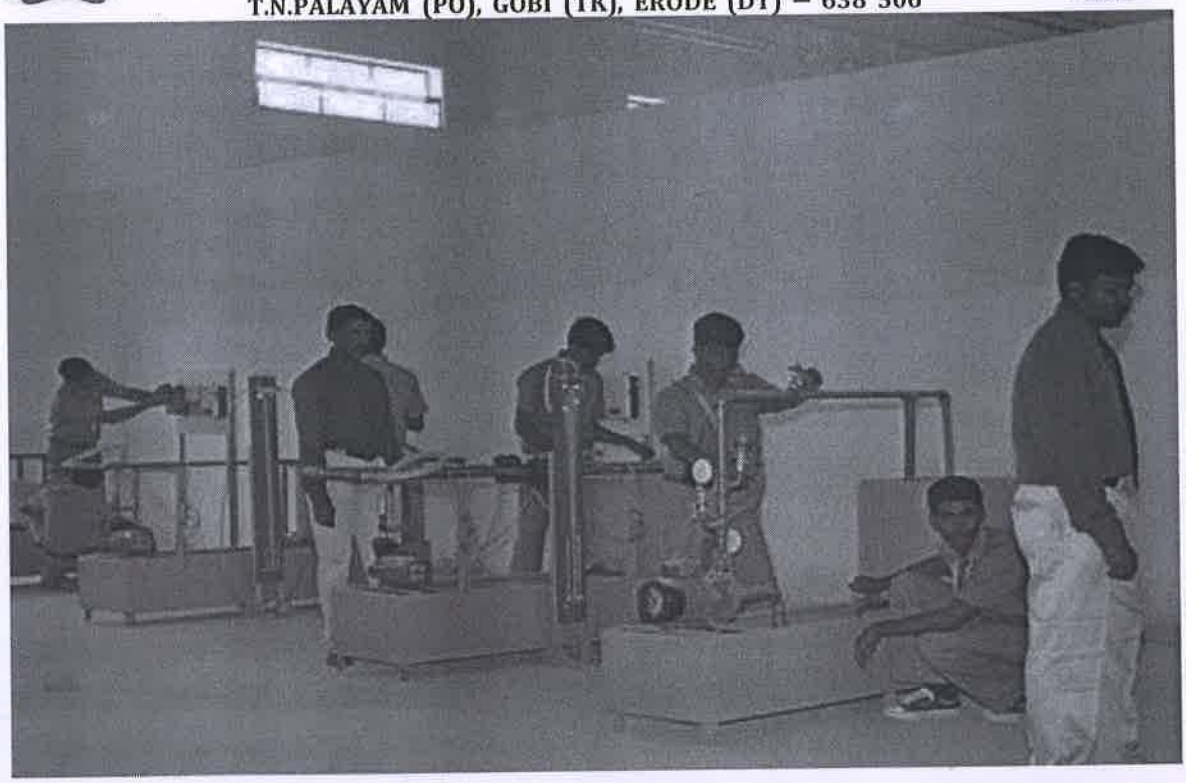
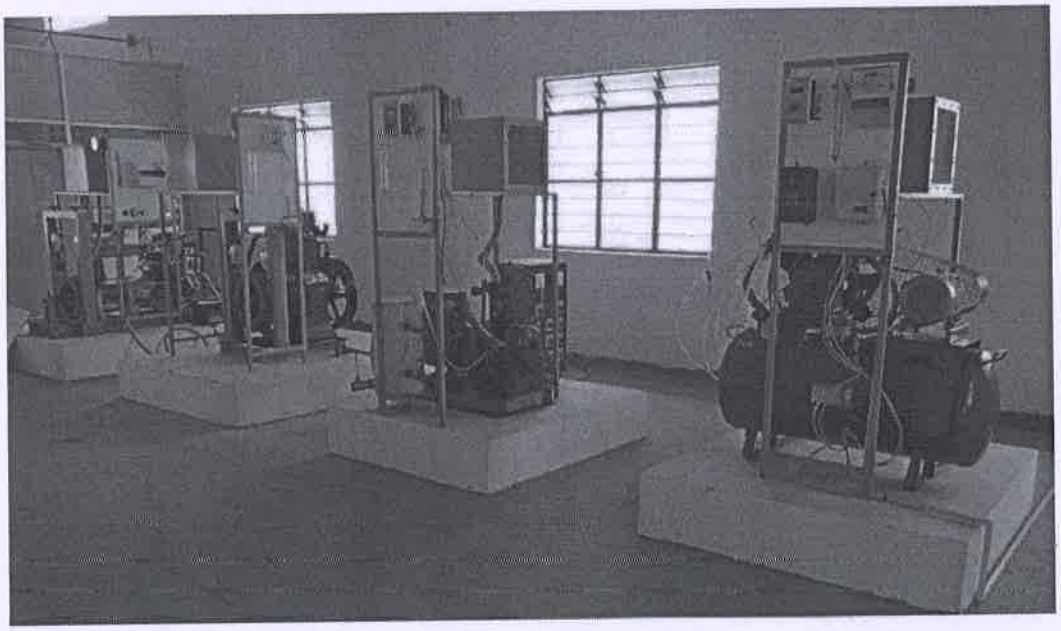


KINEMATICS AND DYNAMICS LABORATORY



THERMAL ENGINEERING LABORATORY – I&II

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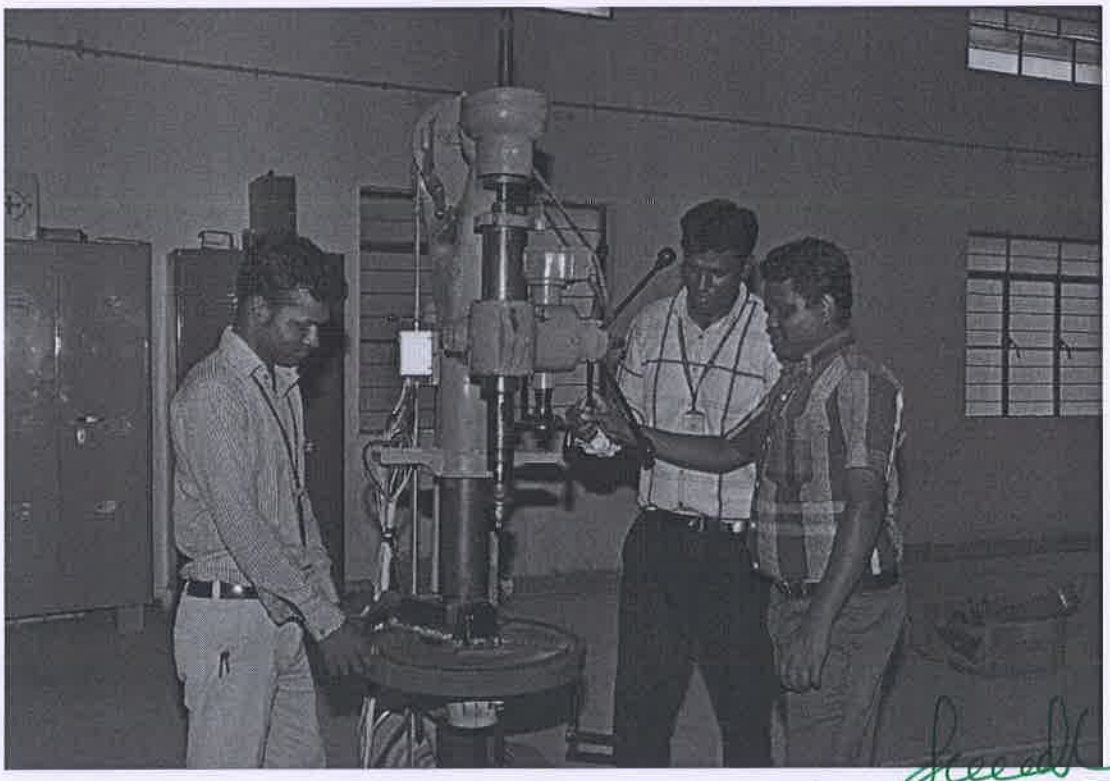
MECHATRONICS LABORATORY



MANUFACTURING TECHNOLOGY LABORATORY-I

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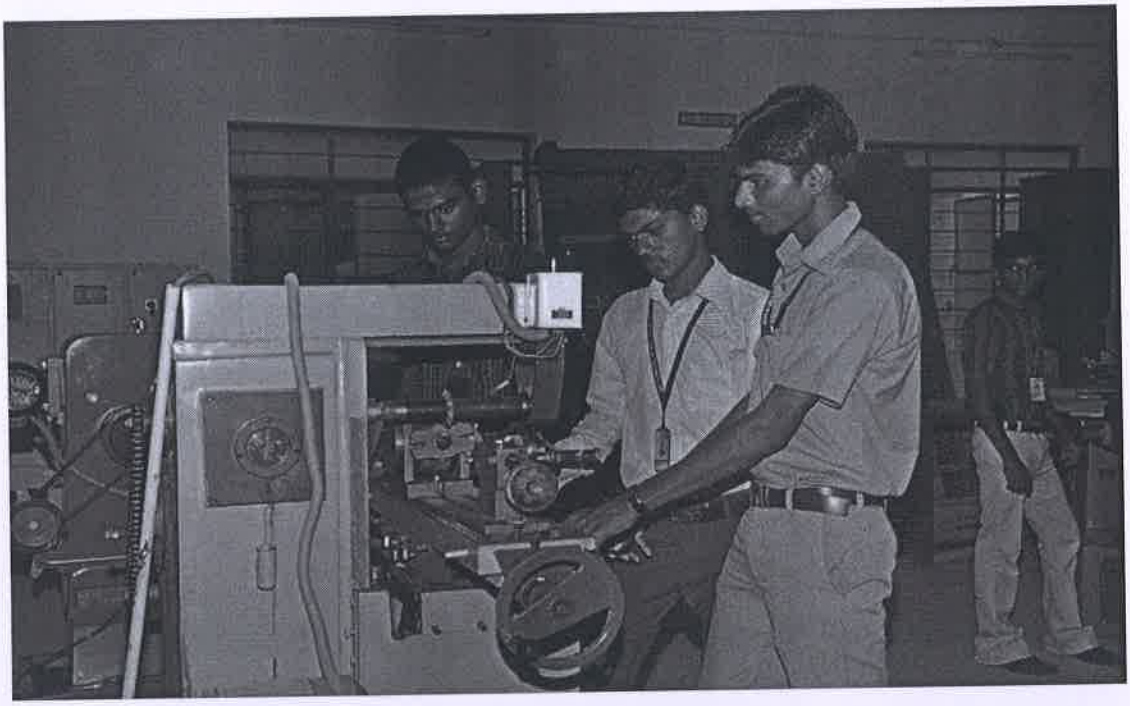

MANUFACTURING TECHNOLOGY LABORATORY – II

METROLOGY AND MEASUREMENTS LABORATORY

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ELECTRICAL ENGINEERING LABORATORY

CAD/CAM LANBORATORY

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DEPARTMENT OF MASTER OF COMPUTER APPLICATIONS

LIST OF LABORATORY COURSES

ACADEMIC YAER 2021-22

DEPARTMENT OF MASTER OF COMPUTER APPLICATION

S.NO	SEMESTER	COURSE CODE	SUBJECT CODE	SUBJECT NAME
1	I	C106	MC5111	Data StructuresLaboratory
2		C107	MC5112	Database ManagementSystems Laboratory
3		C108	MC5113	Communication SkillsLaboratory
4	II	C114	MC5211	Object Oriented ProgrammingLaboratory
5		C115	MC5212	Graphics and Multimedia Laboratory
6		C116	MC5213	Operating Systems andEmbedded Systems Laboratory
7	III	C206	MC5311	Data Structures and Algorithms Laboratory
9		C207	MC5312	Web ProgrammingLaboratory
10		C208	MC5313	Programming withJava Laboratory
11	IV	C214	MC5411	Mobile ApplicationDevelopment Laboratory
12		C215	MC5412	Web ApplicationDevelopment Laboratory
13		C216	MC5413	Technical Seminarand Report Writing
14	V	C306	MC5511	Cloud and Big DataLaboratory
15		C307	MC5512	Software TestingLaboratory
16		C308	MC5513	Mini Project
17	VI	C309	MC5611	Project Work

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S.No	LAB NAME	LIST OF EXPERIMENTS	(STUDENTS)	REMARKS
1	**Data Structures and Algorithms Laboratory**	1. Array implementation of stack 2. Linked list implementation of Queue 3. Polynomial Addition using Linked List 4. Binary Search tree operations 5. AVL Tree operations 6. Graph Traversals 7. Shortest Path using Dijkstra's Algorithm 8. Minimum Spanning Tree using Prim's Algorithm 9. Dictionary application using any of the data structure 10. Divide and Conquer Method - Merge Sort 11. Back Tracking 12. Queen's Problem	5 BATCHS (6 STUDENTS PER BATCH) & 2 CYCLES	
2	**Web Programming Laboratory**	1. Create your own Resume using HTML 5 Tags 2. Debug and validate your HTML document (Resume) using W3C validator and fix the issues. (https://validator.w3.org/#validate_by_upload). 3. Add Styles to your Resume using CSS 3 Properties. Add External, Internal and Inline CSS styles to know the priority. 4. Add CSS3 Animation to your	5 BATCHS (6 STUDENTS PER BATCH) & 2 CYCLES	

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profile.

5. (a) Add functionalities that use any 2 of HTML
6. API's. (b). Create a student Registration form for Job Application and validate the form fields using JavaScript.
7. (a) Create a CGPA Calculator in Web Brower using HTML, CSS and JavaScript. Use functions in JavaScript. (b) Create a Quiz Program with adaptive questions using JavaScript.
8. Create a Pan Card Validation form using Object Oriented JavaScript, consider the 10th character to be an alphabet. Get the user's First Name, Last Name and other required fields as input
9. Assume the last digit of the Pan Number to be an alphabet
10. Validate the PAN Number.
11. (a) Create an online Event Registration form and validate using JQuery (b) Create an online video Player which will allow you to play videos from the system and also create custom playlist using JQuery
12. Construct a JSON Structure for a bookstore and validate it using JSON Validator such as http://jsonlint.com/ and parse

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		the Json file to list the books under the category "Fiction". Use Javascript or JQuery for parsing. 13. Create a Single Page application allowing to search for a movie and displaying the trailer, poster for various movies. Create an admin login to upload the trailer, poster, keyword and details of the movie. Use Bootstrap and JQuery for designing the User Interface. Form Submission should be handled through Ajax. 14. Using PHP and MySQL, develop a program to accept book information viz. Accession number, title, authors, edition and publisher from a web page and store the information in a database and to search for a book with the title specified by the user and to display the search results with proper headings. 15. Develop a Social Media Web Application using HTML5, CSS3, JQuery, AJAX & PHP.		
	Programming	1. Writing Java programs by making use of class, interface, package, etc for the following a. Different types of inheritance study b. Uses of 'this' keyword a. Polymorphism c. Creation of user specific	5 BATCHS (6 STUDENTS PER BATCH) &	

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3	**with Java Laboratory**	packages d. Creation of jar files and using them e. User specific exception handling 2. Writing window based GUI applications using frames and applets such as Calculator application, Fahrenheit to Centigrade conversion etc. 3. Application of threads examples 4. Create a Personal Information System using Swing 5. Event Handling in Swing 6. Reading and writing text files 7. Writing an RMI application to access a remote method 8. Writing a Servlet program with database connectivity for a web based application such as students result status checking, PNR number enquiry etc. 9. Creation and usage of Java bean 10. Create an Application to search Phone Number using contact Name Using Hash Map. 11. Create an Application which finds the Duplicates in E-mail using Set Interface. 12. FTP Using Sockets.	2 CYCLES	
4	**Mobile Application Development Laboratory**	1. Develop an application that uses Layout Managers. 2. Develop an application that uses event listeners. 3. Develop an application that uses Adapters, Toast. 4. Develop an application that makes use of database. 5. Develop an application that makes use of RSS Feed. 6. Implement an application that	5 BATCHS (6 STUDENTS PER BATCH) & 2 CYCLES	

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		implements Multi threading. 7. Develop a native application that uses GPS location information. 8. Implement an application that writes data to the SD card. 9. Implement an application that creates an alert upon receivinga message. 10. Develop a game application		
5	**MC5511 - Cloud and Big Data Laboratory**	1. Find procedure to run the virtual machine of different configuration. Check how many virtual machines can be utilized at particular time 2. Find procedure to attach virtual block to the virtual machine and check whether it holds the data even after the release of the virtual machine 3. Install a C compiler in the virtual machine and execute a sample program. 4. Show the virtual machine migration based on the certain condition from one node to the other 5. Find procedure to install storage controller and interact with it 5. Find procedure to set up the one node Hadoop cluster. 6. Mount the one node Hadoop cluster using FUSE. 7. Write a word count program to demonstrate the use of Map - Reduce tasks.	5 BATCHS (6 STUDENTS PER BATCH) & 2 CYCLES	

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		8. Unstructured data into NoSQL data and do all operations such as NoSQL query with API. 9. 10. K-means clustering using map reduce 11. Page Rank Computation		
6	**Software Testing Laboratory**	1. Using Selenium IDE, Write a test suite containing minimum 4 test cases. 2. Install Selenium server and demonstrate it using a script in Java/PHP. 3. Write and test a program to login a specific web page. 4. Write and test a program to update 10 student records into table into Excel file. 5. Write and test a program to select the number of students who have scored more than 60 in any one subject (or all subjects) 6. Write and test a program to provide total number of objects present / available on the page 7. Write and test a program to get the number of list items in a list / combo box. 8. Write and test a program to count number of check boxes on the page checked and unchecked count.	5 BATCHS (6 STUDENTS PER BATCH) & 2 CYCLES	

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		1. Develop a car showroom inventory web application		
7	Web Application Development Laboratory	with 2-tier architecture. Use JSP and JDBC. 2. Develop a real estate web application with n-tier architecture. Use JSP, Servlets and JDBC. a. The application should be able to add and search all properties such as rental/own, individual/ apartment and duplex/semi-duplex. 3. Develop a standalone java application or a web application to manage books in an online library, support CURD operations. 4. Develop a simple Spring MVC application that take user input and checks the input using standard validation annotations. 5. Develop a simple database application using Spring JDBC/Struts with CURD functionality. 6. Develop any web application which authenticates Spring LDAP. 7. Design a student identity management web application using struts framework. The application should be able to provide an identity such as	5 BATCHS (6 STUDENTS PER BATCH) & 2 CYCLES	

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		Student id, access to department assets with department id, access to lab assets with lab id. a. Create an simple online bookstore using Spring MVC 9. Build an application that uses Spring's RestTemplate to retrieve a random Spring Boot quotation at http://gturnquist-quoters.cfapps.io/api/random. b. Create weather service using spring/struts which will return the temp in JSON format and XML format.		

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DATA STRUCTURES AND ALGORITHMS LABORATORY

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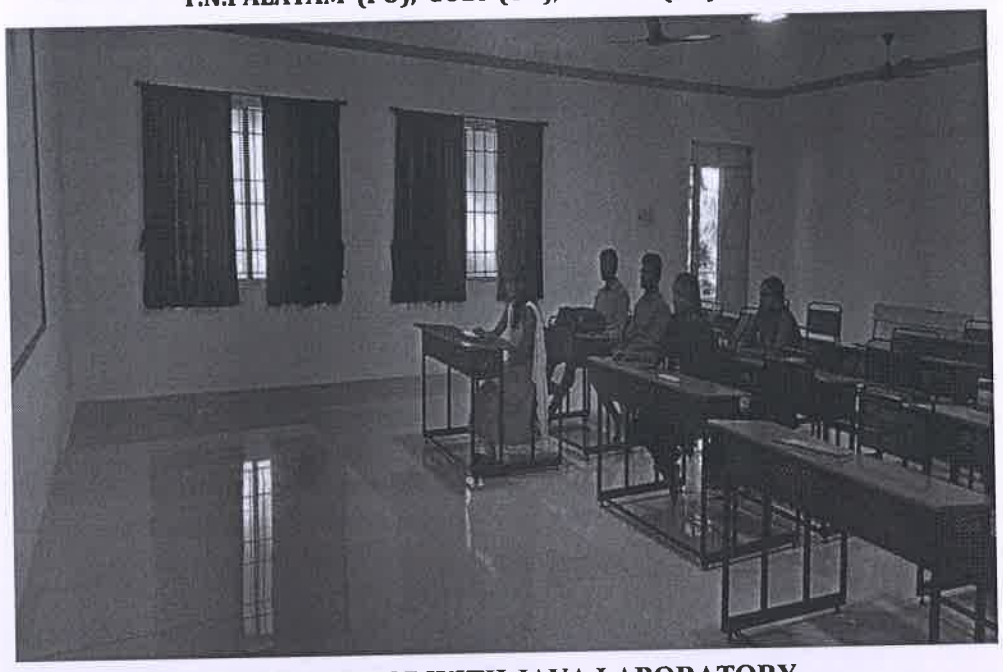

WEB PROGRAMMING WITH JAVA LABORATORY

MOBILE APPLICATION DEVELOPMENT LABORATORY

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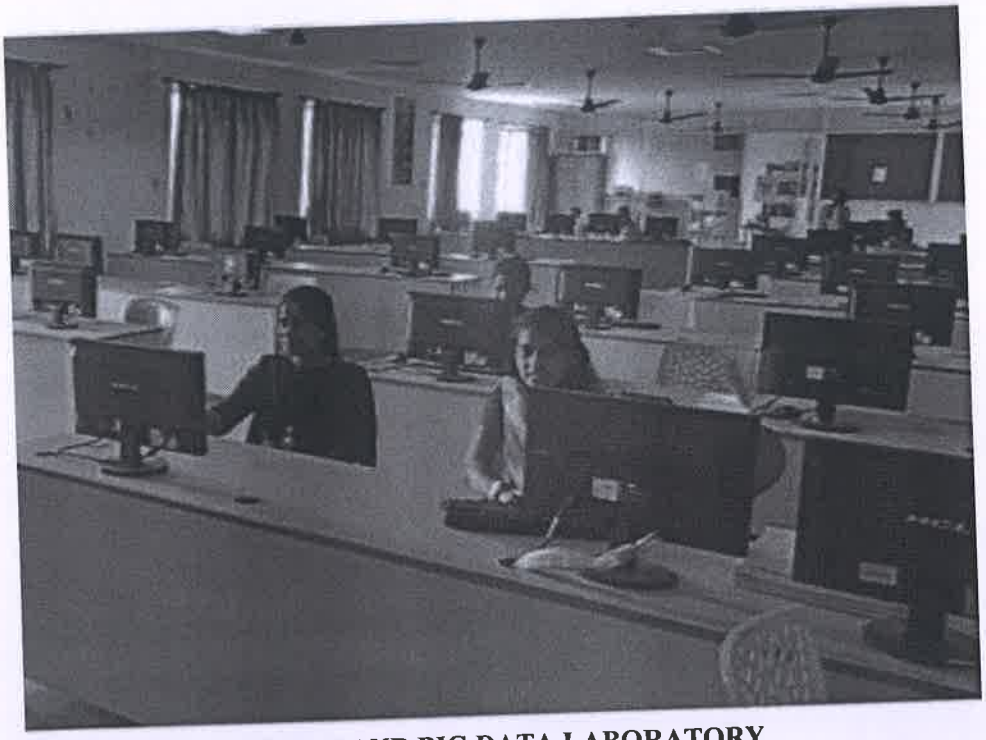
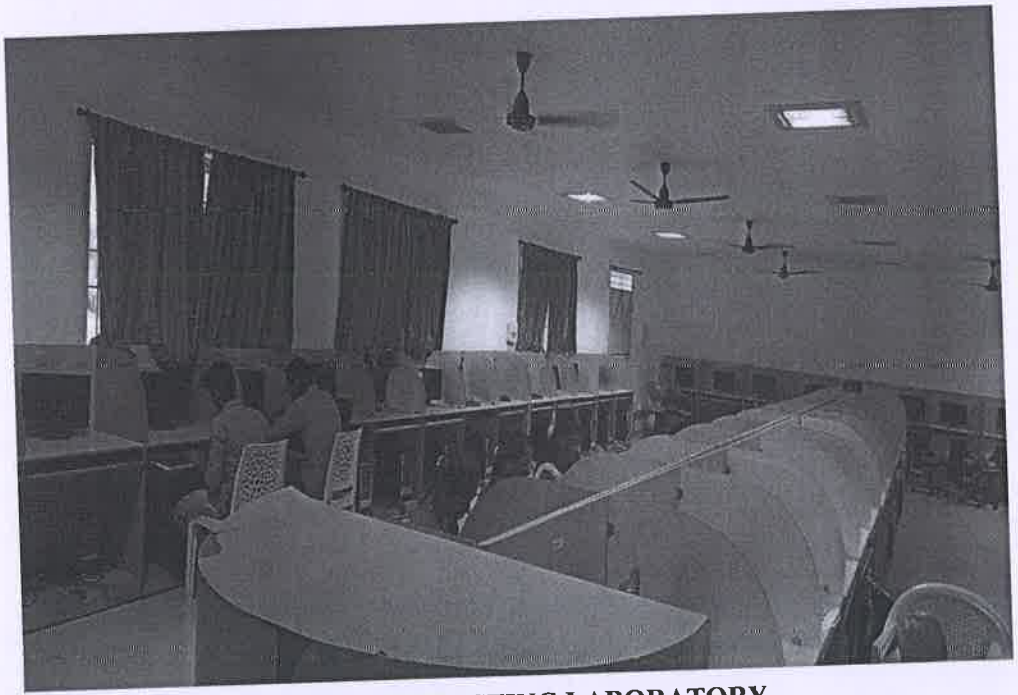


CLOUD AND BIG DATA LABORATORY



SOFTWARE TESTING LABORATORY

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LIST OF LABORATORY COURSES

ACADEMIC YEAR 2021-22

DEPARTMENT OF INFORMATION TECHNOLOGY

S.NO	SEMESTER	COURSE CODE	SUBJECT CODE	SUBJECT NAME
1	I	C107	GE8161	Problem Solving and Python Programming Laboratory
2		C108	BS8161	Physics and ChemistryLaboratory
3	II	C115	GE8261	Engineering PracticesLaboratory
4		C116	CS8261	C Programming Laboratory
5		C117	IT8211	Information TechnologyEssentials Laboratory
6	III	C206	CS8381	Data Structures Laboratory
7		C207	CS8383	Object Oriented Programming Laboratory
8		C208	CS8382	Digital Systems Laboratory
9		C209	HS8381	Interpersonal Skills/Listening& Speaking
10	IV	C216	CS8481	Database ManagementSystems Laboratory
11		C217	CS8461	Operating Systems Laboratory
12		C218	HS8461	Advanced Reading and Writing
13	V	C307	EC8681	Microprocessors and Microcontrollers Laboratory
14		C308	CS8581	Networks Laboratory
15		C309	IT8511	Web Technology Laboratory
16	VI	C316	CS8662	Mobile Application Development Laboratory
17		C317	CS8582	Object Oriented Analysis and Design Laboratory
18		C318	IT8611	Mini Project
19	VII	C407	IT6711	Data Mining Laboratory
20		C408	IT6712	Security Laboratory
21		C409	T6713	Grid and Cloud Computing Laboratory
22	VIII	C411	IT6811	Project Work

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DEPARTMENT OF MECHANICAL ENGINEERING

M.E –MANUFACTURING ENGINEERING

S.No	LAB NAME	LIST OF EXPERIMENTS	BATCH SIZE (STUDENTS)	REMARKS
1	CAD/CAM Laboratory	CAM LABORATORY 1. Exercise on CNC Lathe: Plain Turning, Step turning, Taper turning, Threading, Grooving canned cycle 2. Exercise on CNC Milling Machine: Profile Milling, Mirroring, Scaling & canned cycle. Study of Sensors, Transducers & PLC: Hall-effect sensor, Pressure sensors, Strain gauge, PLC, LVDT, Load cell,	2 BATCHS (6 STUDENTS PER BATCH) & 2 CYCLES	

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		Angular potentiometer, Torque, Temperature & Optical Transducers. CAD LABORATORY 2D modeling and 3D modeling of components such as 1. Bearing 2. Couplings 3. Gears 4. Sheet metal components 5. Jigs, Fixtures and Die assemblies.		
2	**Automation and Metal Forming Laboratory**	EXPERIMENTS 1. Determination of strain hardening exponent 2. Determination of strain rate sensitivity index 3. Construction of formability limit diagram 4. Determination of efficiency in water hammer forming 5. Determination of interface friction factor 6. Determination of extrusion load 7. Study on two high rolling process AUTOMATION LAB 1. Simulation of single and double acting cylinder circuits 2. Simulation of Hydraulic circuits 3. Simulation of electro pneumatic circuits 4. Simulation of electro hydraulic circuits 5. Simulation of PLC circuits 6. Software simulation of fluid power circuits using Automation studio.	2 BATCHS (6 STUDENTS PER BATCH) & 2 CYCLES	

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LIST OF LABORATORY COURSES

ACADEMIC YEAR 2021-22

DEPARTMENT OF ELECTRONICS AND COMMUNICAITON ENGINEERING

S.NO	SEMESTER	COURSE CODE	SUBJECT CODE	SUBJECT NAME
1	I	107	GE8161	Problem Solving and Python Programming Laboratory
2		108	BS8161	Physics and Chemistry Laboratory
3	II	115	EC8261	Circuits and Devices Laboratory
4		116	GE8261	Engineering Practices Laboratory
5	III	207	EC8381	Fundamentals of Data Structures in C Laboratory
6		208	EC8361	Analog and Digital Circuits Laboratory
7		209	HS8381	Interpersonal Skills/Listening &Speaking
8	IV	216	EC8461	Circuits Design and Simulation Laboratory
9		217	EC8462	Linear Integrated Circuits Laboratory
10	V	307	EC8562	Digital Signal Processing Laboratory
11		308	EC8561	Communication Systems Laboratory
12		309	EC8563	Communication Networks Laboratory
13	VI	316	EC8681	Microprocessors and Microcontrollers Laboratory
14		317	EC8661	VLSI Design Laboratory
15		318	EC8611	Technical Seminar
16		319	HS8581	Professional Communication
17	VII	407	EC8711	Embedded Laboratory
18		408	EC8761	Advanced Communication Laboratory
19	VIII	411	EC8811	Project Work

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

S.No	LAB NAME	LIST OF EXPERIMENTS	BATCH SIZE (STUDENTS)	REMARKS
1	**Circuits and Devices Laboratory**	1. Characteristics of PN Junction Diode 2. Zener diode Characteristics & Regulator using Zener diode 3. Common Emitter input-output Characteristics 4. Common Base input-output Characteristics 5. FET Characteristics 6. SCR Characteristics 7. Clipper and Clamper & FWR 8. Verifications Of Thevinin & Norton theorem 9. Verifications Of KVL & KCL 10. Verifications Of Super Position Theorem 11. Verifications of maximum power transfer & reciprocity theorem 12. Determination Of Resonance Frequency of Series & Parallel RLC Circuits 13. Transient analysis of RL and RC circuits	5 BATCHS (6 STUDENTS PER BATCH) & 2 CYCLES	

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2	**Analog and Digital Circuits Laboratory**	1.Design of Regulated Power supplies 2.Frequency Response of CE, CB, CC and CS amplifiers 3.Darlington Amplifier 4. Differential Amplifiers - Transfer characteristics, CMRR Measurement 5.Cascode and Cascade amplifiers 6.Determination of bandwidth of single stage and multistage amplifiers 7.Analysis of BJT with Fixed bias and Voltage divider bias using Spice 8.Analysis of FET, MOSFET with fixed bias, self-bias and voltage divider bias using simulation software like Spice 9.Analysis of Cascode and Cascade amplifiers using Spice 10.Analysis of Frequency Response of BJT and FET using Spice	5 BATCHS (6 STUDENTS PER BATCH) & 2 CYCLES	
3	**Circuits Design and Simulation Laboratory**	1.Series and Shunt feedback amplifiers-Frequency response, Input and output impedance 2.RC Phase shift oscillator and Wien Bridge Oscillator 3.Hartley Oscillator and Colpitts Oscillator 4.Single tuned Amplifier 5.RC Integrator and Differentiator circuits 6.Astable and Monostable multivibrators 7.Clippers and Clampers SIMULATION USING SPICE (Using	5 BATCHS (6 STUDENTS PER BATCH) & 2 CYCLES	

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		Transistor): 1.Tuned Collector Oscillator 2.Twin -T Oscillator / Wein Bridge Oscillator 3.Double and Stagger tuned Amplifiers 4.Bistable Multivibrator 5.Schmitt Trigger circuit with Predictable hysteresis 6.Analysis of power amplifier		
4	**Linear Integrated Circuits Laboratory**	1.Inverting, Non inverting and differential amplifiers 2.Integrator and Differentiator 3.Instrumentation amplifier 4.Active low-pass, High-pass and band-pass filters 5.A stable & Monostable multivibrators using Op-amp 6.Schmitt Trigger using op-amp. 7.Phase shift and Wien bridge oscillators using Op-amp 8.Astable and Monostable multivibrators using NE555 Timer 9.PLL characteristics and its use as Frequency Multiplier, Clock synchronization 10.R-2R Ladder Type D- A Converter using Op-amp 11.DC power supply using LM317 and LM723 12.Study of SMPS **SIMULATION USING SPICE:** 1.Active low-pass, High-pass and	5 BATCHS (6 STUDENTS PER BATCH) & 2 CYCLES	

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		band-pass filters using Op-amp 2.A stable and Monostable multivibrators using NE555 Timer 3.A/D Converter 4.Analog Multiplier		
5	**Digital Signal Processing Laboratory**	**LIST OF EXPERIMENTS: MATLAB / EQUIVALENT SOFTWARE PACKAGE** 1.Generation of elementary Discrete-Time sequences 2.Linear and Circular convolutions 3.Autocorrelation and Cross correlation 4.Frequency analysis using DFT` Design of FIR filters (LPF/HPF/BPF/BSF) and demonstrates the filtering operation 5.Design of Butterworth and Chebyshev IIR filters (LPF/HPF/BPF/BSF) and demonstrate the filtering operations **DSP PROCESSOR BASED IMPLEMENTATION** 1.Study of architecture of Digital Signal Processor 2.Perform MAC operation using various addressing modes 3.Generation of various signals and random noise 4.Design and demonstration of FIR Filter for Low pass, High pass, Band pass and Band stop filtering 5. Design and demonstration of Butter worth and Chebyshev IIR Filters for 6.Low pass, High pass, Band pass and	5 BATCHS (6 STUDENTS PER BATCH) & 2 CYCLES	

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		Band stop filtering. 7.Implement an Up-sampling and Down-sampling operation in DSP Processor		
6	**Communication Systems Laboratory**	1. Signal Sampling and reconstruction 2. Time Division Multiplexing 3. AM Modulator and Demodulator 4. FM Modulator and Demodulator 5. Pulse Code Modulation and Demodulation 6. Delta Modulation and Demodulation 7. Line coding schemes 8. Simulation of ASK, FSK, and BPSK generation schemes 9. Simulation of Linear Block and Cyclic error control coding schemes 10. Simulation of signal constellations of BPSK, QPSK and QAM 11. Simulation of ASK,FSK,BPSK Schemes 12. Simulation of DPSK, QPSK and QAM generation schemes 13. Simulation of Convolutional coding scheme 14. Communication link simulation	5 BATCHS (6 STUDENTS PER BATCH) & 2 CYCLES	
7	**Communication Networks Laboratory**	1. Implementation of Error Detection / Error Correction Techniques 2. Implementation of Stop and Wait Protocol and sliding window 3. Implementation and study of Go back-N and selective repeat protocols 4. Implementation of High Level Data Link Control 5. Implementation of IP Commands such as ping, Traceroute, nslookup 6. Implementation of IP address configuration	5 BATCHS (6 STUDENTS PER BATCH) & 2 CYCLES	

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		7. To create scenario and study the performance of network with CSMA / CA protocol and compare with CSMA/CD protocols 8. Network Topology - Star, Bus, Ring 9. Implementation of distance vector routing algorithm 10. Implementation of Link state routing algorithm 11. Study of Network simulator (NS) and simulation of Congestion Control Algorithms using NS 12. Implementation of Encryption and Decryption Algorithms using any programming language		
8	**Microprocessors and Microcontrollers Laboratory**	**8086 Programs using kits and MASM** 1. Basic arithmetic and Logical operations 2. Move a data block without overlap 3. Code conversion, decimal arithmetic and Matrix operations. 3. Floating point operations, string manipulations, sorting and searching 5. Password checking, Print RAM size and system date 4. Counters and Time Delay. **Peripherals and Interfacing Experiments** 1. Traffic light controller 2. Stepper motor control 3. Digital clock 4. Key board and Display 5. Printer status 6. Serial interface and Parallel interface 7. A/D and D/A interface and Waveform Generation **8051 Experiments using kits and MASM** 1. Basic arithmetic and Logical operations 2. Square and Cube program, Find 2's complement of a	5 BATCHS (6 STUDENTS PER BATCH) & 2 CYCLES	

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		number 3. Unpacked BCD to ASCII		
9	**VLSI Design Laboratory** Design and sin 1. Manual/Autom experiments 7	**Part I: Digital System Design using HDL & FPGA (24 Periods)** 1. Design an Adder (Min 8 Bit) using HDL. Simulate it using Xilinx/Altera Software and implement by Xilinx/Altera FPGA 2. Design a Multiplier (4 Bit Min) using HDL. Simulate it using Xilinx/Altera Software and implement by Xilinx/Altera FPGA 3. Design an ALU using HDL. Simulate it using Xilinx/Altera Software and implement by Xilinx/Altera FPGA 4. Design a Universal Shift Register using HDL. Simulate it using Xilinx/Altera Software and implement by Xilinx/Altera FPGA 5. Design Finite State Machine (Moore/Mealy) using HDL. Simulate it using Xilinx/Altera Software and implement by Xilinx/Altera FPGA 6. Design Memories using HDL. Simulate it using Xilinx/Altera Software and implement by Xilinx/Altera FPGA **Part-II Digital Circuit Design (24 Periods)** 1. Design and simulate a CMOS inverter using digital flow 2. Design and simulate a CMOS Basic Gates & Flip-Flops 3. Analyze the power, area and timing for experiments 7 to 9 by performing Pre Layout and Post Layout Simulations **Part-III Analog Circuit Design (12 Periods)** 1. Design and Simulate a CMOS Inverting Amplifier 2. Design and Simulate basic	5 BATCHS (6 STUDENTS PER BATCH) & 2 CYCLES	

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		Common Source, Common Gate and Common Drain Amplifiers 3. Analyze the input impedance, output impedance, gain and bandwidth for experiments 10 and 11 by performing Schematic Simulations 4. Design and simulate simple 5 transistor differential amplifier. Analyze Gain, 5. Bandwidth and CMRR by performing Schematic Simulations.		
10	**Embedded Laboratory**	1. Study of ARM evaluation system 2. Interfacing ADC and DAC 3. Interfacing LED and PWM. 4. Interfacing real time clock and serial port 5. Interfacing keyboard and LCD. 6. Interfacing EPROM and interrupt 7. Mailbox. 8. Interrupt performance characteristics of ARM and FPGA. 9. Flashing of LEDS 10. Interfacing stepper motor and temperature sensor. 11. Implementing zigbee protocol with ARM	5 BATCHS (6 STUDENTS PER BATCH) & 2 CYCLES	
11	**Advanced Communication Laboratory**	**LIST OF OPTICAL EXPERIMENTS** 1. Measurement of connector, bending and fiber attenuation losses 2. Numerical Aperture and Mode Characteristics of Fibers. 3. DC Characteristics of LED and PIN Photo diode 4. Fiber optic Analog and Digital Link Characterization - frequency response(analog), eye	5 BATCHS (6 STUDENTS PER BATCH) & 2 CYCLES	

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		diagram and BER (digital) **LIST OF WIRELESS COMMUNICATION EXPERIMENTS** 1. Wireless Channel Simulation including fading and Doppler effects 2. Simulation of Channel Estimation, Synchronization & Equalization techniques 3. Analysing Impact of Pulse Shaping and Matched Filtering using Software Defined Radios 4. OFDM Signal Transmission and Reception using Software Defined Radios **LIST OF MICROWAVE EXPERIMENTS** ➢ VSWR and Impedance ➢ Measurement and Impedance Matching 1. Characterization of Directional Couplers, Isolators, Circulators 2. Gunn Diode Characteristics 3. 4.Microwave IC – Filter Characteristics		

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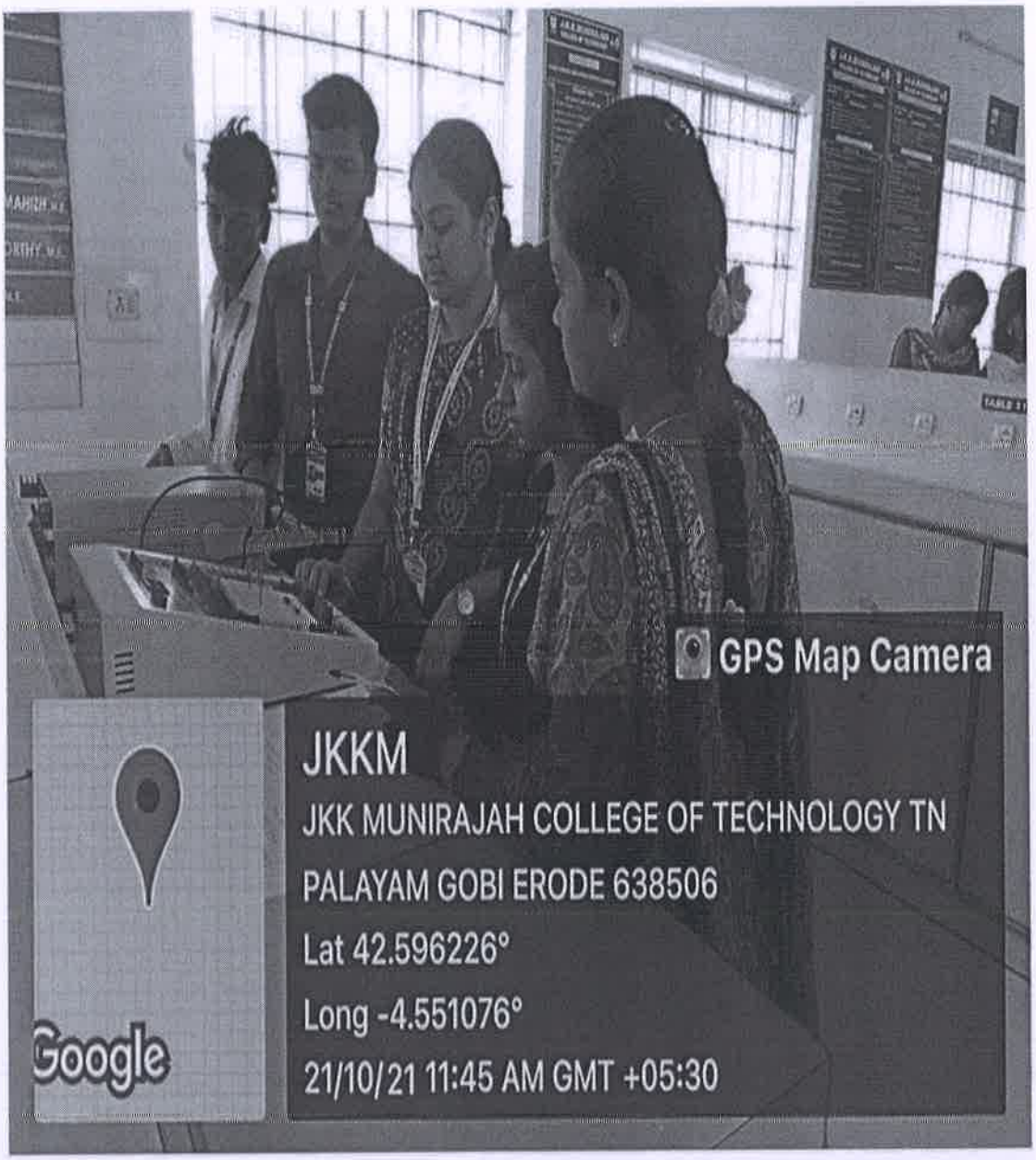
PHOTO GALLERY



ANALOG AND DIGITAL CIRCUITS LABORATORY

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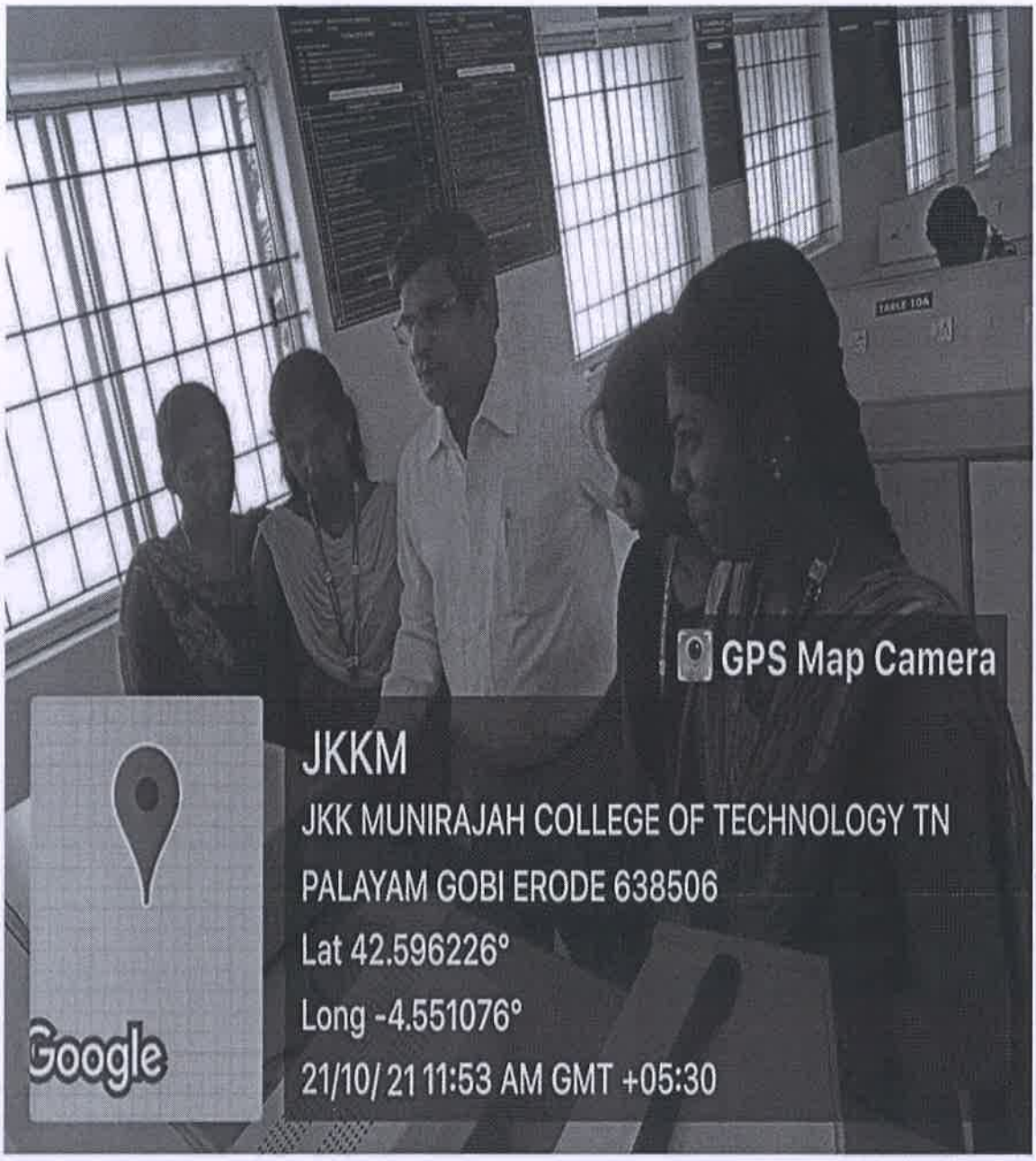

CIRCUITS DESIGN AND SIMULATION LABORATORY

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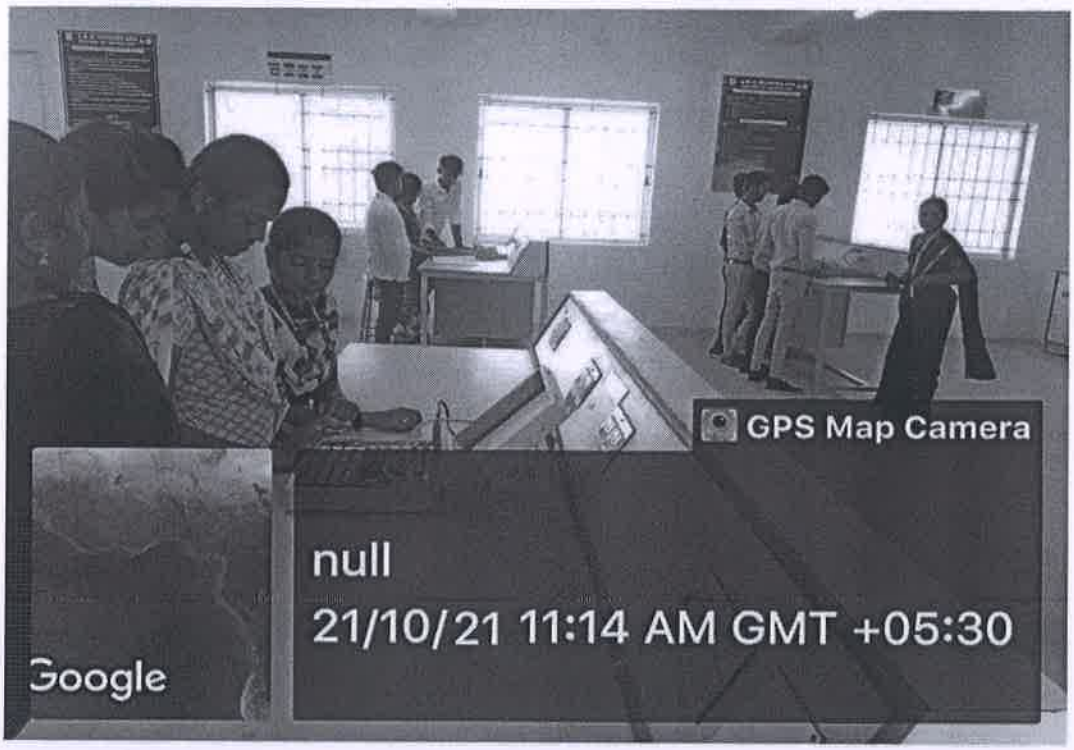
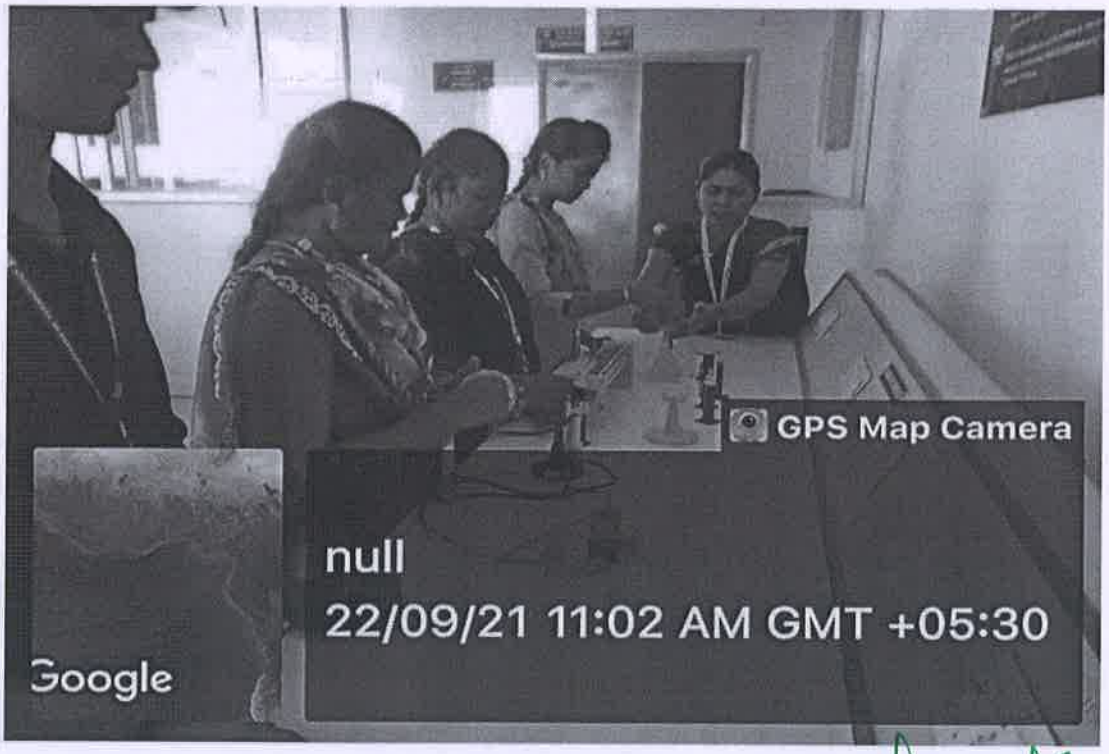


CIRCUITS AND DEVICES LABORATORY



LINEAR INTEGRATED CIRCUITS

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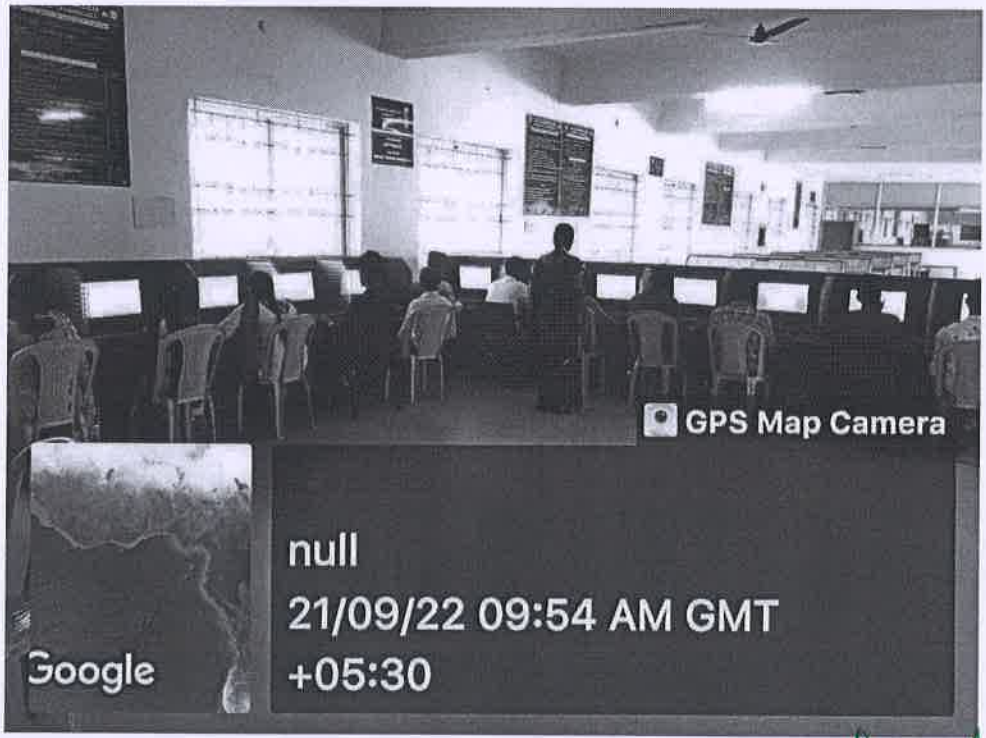
DIGITAL SIGNAL PROCESSING LABORATORY



COMMUNICATION SYSTEMS LABORATORY

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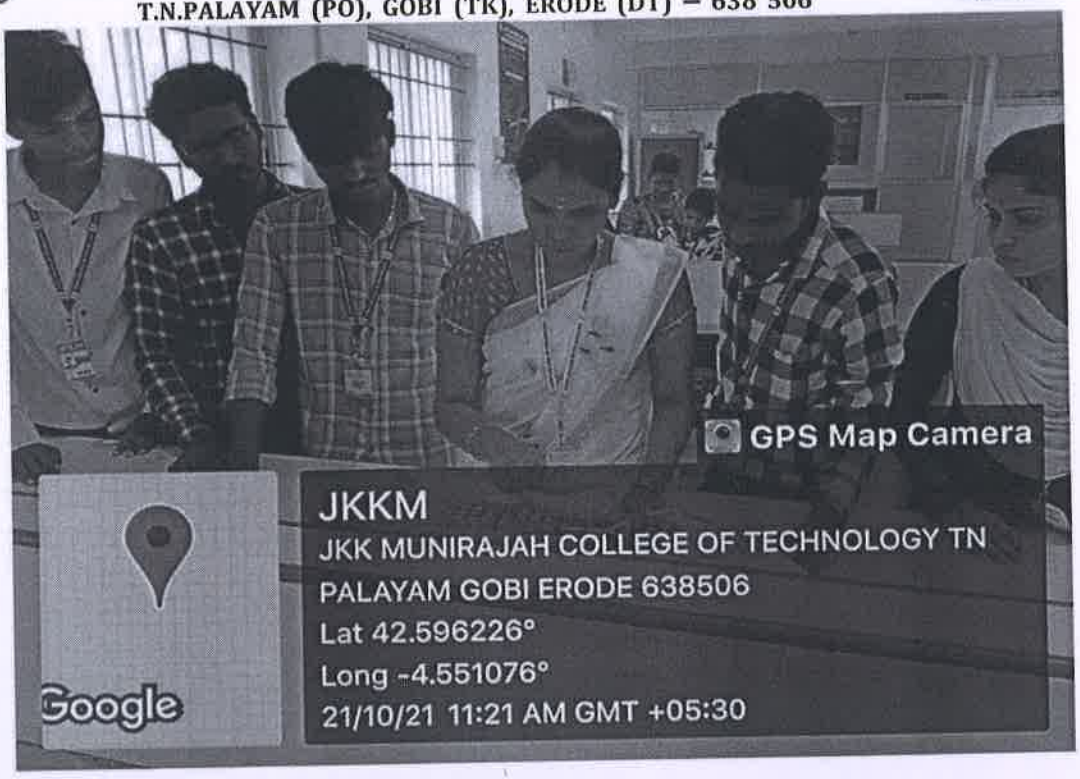
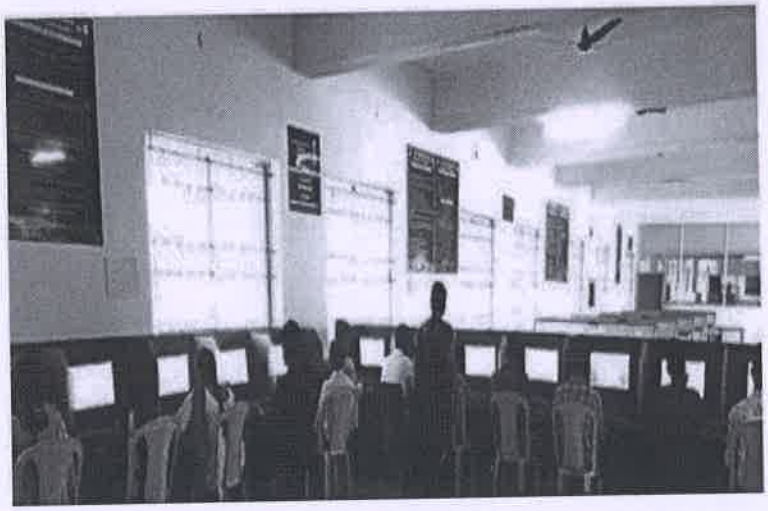


MICROPROCESSORS AND MICROCONTROLLERS LABORATORY



VLSI DESIGN LABORATORY

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COLLEGE OF TECHNOLOGY

T.N.PALAYAM (PO), GOBI (TK), ERODE (DT) – 638 506

LIST OF LABORATORY COURSES

ACADEMIC YEAR 2021-22

DEPARTMENT OF ELECRONICS AND COMMUNICAITON ENGINEERING

M.E-APPLIED ELECTRONICS

S.NO	SEMESTER	COURSE CODE	SUBJECT CODE	SUBJECT NAME
1	I	AP5111		ELECTRONICS SYSTEM DESIGN LABORATORY I
2	II	AP52111		ELECTRONICS SYSTEM DESIGN LABORATORY II
3	III	CP5281		1 Term Paper Writing and Seminar
4	IV	AP5311		Project Work Phase I
5	V	AP5411		Project Work Phase II

S.No	LAB NAME	LIST OF EXPERIMENTS	BATCH SIZE (STUDENTS	REMARKS
1	**Electronic System Design Laboratory I**	1. System design using PIC, MSP430, „51 Microcontroller and 16- bit Microprocessor - 8086. 2. Study of different interfaces (using embedded microcontroller) 3. Implementation of Adaptive Filters and multistage multirate system in DSP Processor 4. Simulation of QMF using Simulation Packages 5. Analysis of Asynchronous and clocked synchronous sequential circuits 6. Built in self test and	2 BATCHS (6 STUDENTS PER BATCH) & 2 CYCLES	

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		fault diagnosis 7. Sensor design using simulation tools 8. Design and analysis of real time signal processing system – Data acquisition and signal processing		
2	**Electronic System Design Laboratory II**	1. Study of 32 bit ARM7 microcontroller RTOS and its application 2. Testing RTOS environment and system programming 3. Designing of wireless network using embedded systems 4. Implementation of ARM with FPGA 5. Design and Implementation of ALU in FPGA using VHDL and Verilog 6. Modeling of Sequential Digital system using Verilog and VHDL 7. Flash controller programming - data flash with erase, verify and fusing 8. System design using ASIC 9. Design, simulation and analysis of signal integrity	2 BATCHS (6 STUDENTS PER BATCH) & 2 CYCLES	

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DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

S.No	LAB NAME	LIST OF EXPERIMENTS	BATCH SIZE (STUDENTS)	REMARKS
1	**Electrical Machines Laboratory - I**	1. Open circuit and load characteristics of DC shunt generator- critical resistance and critical speed. 2. Load characteristics of DC compound generator with differential and cumulative connections. 3. Load test on DC shunt motor. 4. Load test on DC compound motor. 5. Load test on DC series motor. 6. Swinburne's test and speed control of DC shunt motor. 7. Hopkinson's test on DC motor – generator set. 8. Load test on single-phase transformer and three phase transformers. 9. Open circuit and short circuit tests on single phase transformer. 10. Sumpner's test on single phase transformers. 11. Separation of no-load losses in single phase transformer. 12. Study of starters and 3-phase transformers connections.	5 BATCH (6 STUDENTS/ BATCH) & 2 CYCLES	

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2	**Electrical Machines Laboratory - II**	1. Regulation of three phase alternator by EMF and MMF methods. 2. Regulation of three phase alternator by ZPF and ASA methods. 3. Regulation of three phase salient pole alternator by slip test. 4. Measurements of negative sequence and zero sequence impedance of alternators. 5. V and Inverted V curves of Three Phase Synchronous Motor. 6. Load test on three-phase induction motor. 7. No load and blocked rotor tests on three-phase induction motor (Determination of equivalent circuit parameters). 8. Separation of No-load losses of three-phase induction motor. 9. Load test on single-phase induction motor. 10. No load and blocked rotor test on single-phase induction motor. 11. Study of Induction motor Starters	5 BATCH (6 STUDENT S/ BATCH) & 2 CYCLES	
		1. Implementation of Boolean Functions, Adder and Subtractor circuits. 2. Code converters: Excess-3 to BCD and Binary to Gray code converter and vice-versa 3. Parity generator and parity checking 4. Encoders and Decoders 5. Counters: Design and implementation of 3-bit modulo counters as synchronous and Asynchronous types using		

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3	**Linear and Digital Integrated Circuits Laboratory**	FF IC's and specific counter IC. 6. Shift Registers: Design and implementation of 4-bit shift registers in SISO, SIPO, PISO, PIPO modes using suitability IC's. 7. Study of multiplexer and de multiplexer 7. Timer IC application:		
		Study of NE/SE 555 timer in Astability, Monostability operation. 8. Application of Op-Amp: inverting and non-inverting amplifier, Adder, comparator, Integrator and Differentiator. 9. Voltage to frequency characteristics of NE/ SE 566 IC. 10. Variability Voltage Regulator using IC LM317.		
4	**Control and Instrumentation Laboratory**	CONTROLSYSTEMS: 1. P, PI and PID controllers 2. Stability Analysis 3. Modeling of Systems – Machines, Sensors and Transducers 4. Design of Lag, Lead and Lag-Lead Compensators 5. Position Control Systems 6. Synchro-Transmitter-Receiver and Characteristics 7. Simulation of Control Systems by Mathematical development tools. INSTRUMENTATION: 8. Bridge Networks –AC and DC Bridges 9. Dynamics of Sensors/Transducers (a) Temperature (b) pressure (c) Displacement (d) Optical (e) Strain (f) Flow	5 BATCH (6 STUDENT S/ BATCH) & 2 CYCLES	

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		10. Power and Energy Measurement 11. Signal Conditioning (a) Instrumentation Amplifier (b) Analog – Digital and Digital –Analog converters (ADC and DACs) 12. Process Simulation		
5	**Power Electronics and Drives Laboratory**	1. Characteristics of SCR and TRIAC	\ 5 BATCH	
		2. Characteristics of MOSFET and IGBT 3. AC to DC half controlled converter 4. AC to DC fully controlled Converter 5. Step down and step up MOSFET based choppers 6. IGBT based single phase PWM inverter 7. IGBT based three phase PWM inverter 8. AC Voltage controller 9. Switched mode power converter. 10. Simulation of PE circuits (1Φ & 3Φ semi converters, 1Φ & 3Φ full converters, DC-DC converters, AC voltage controllers). 11. Characteristics of GTO & IGCT. 12. Characteristics of PMBLDC motor	(6 STUDENT S/ BATCH) & 2 CYCLES	
6	**Microprocessors and Microcontrollers Laboratory**	1. Simple arithmetic operations: addition / subtraction / multiplication / division. 2. Programming with control instructions: (i) Ascending / Descending order, Maximum / Minimum of numbers. (ii) Programs using Rotate instructions. (iii) Hex / ASCII / BCD code	5 BATCH (6 STUDENT S/ BATCH) & 2 CYCLES	

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		conversions. 3. Interface Experiments: with 8085 (i) A/D Interfacing. & D/A Interfacing. 4. Traffic light controller. 5. I/O Port / Serial communication 6 Programming Practices with Simulators/Emulators/open source 7 Read a key ,interface display 6. Demonstration of basic		
		instructions with 8051 Micro controller execution, including: (i) Conditional jumps & looping (ii) Calling subroutines. 7. Programming I/O Port and timer of 8051 (i) study on interface with A/D & D/A (ii) Study on interface with DC & AC motors 8. Application hardware development using embedded processors.		
7	**Power System Simulation Laboratory**	1. Computation of Transmission Line Parameters 2. Formation of Bus Admittance and Impedance Matrices and Solution of Networks 3. Power Flow Analysis using Gauss-Seidel Method 4. Power Flow Analysis using Newton Raphson Method 5. Symmetric and unsymmetrical fault analysis 6. Transient stability analysis of SMIB System 7. Economic Dispatch in Power Systems 8. Load – Frequency Dynamics of Single- Area and Two-Area Power	5 BATCH (6 STUDENT S/ BATCH) & 2 CYCLES	

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		Systems 9. State estimation: Weighted least square estimation 10. Electromagnetic Transients in Power Systems : Transmission Line Energization		
		1. Simulation study on Solar PV Energy System. 2. Experiment on "VI-Characteristics and Efficiency of 1kWp Solar PV System". 3. Experiment on "Shadowing effect & diode		
8	**Renewable Energy Systems Laboratory**	based solution in 1kWp Solar PV System". 4. Experiment on Performance assessment of Grid connected and Standalone 1kWp Solar Power System. 5. Simulation study on Wind Energy Generator. 6. Experiment on Performance assessment of micro Wind Energy Generator. 7. Simulation study on Hybrid (Solar-Wind) Power System. 8. Experiment on Performance Assessment of Hybrid (Solar-Wind) Power System. 9. Simulation study on Hydel Power. 10. Experiment on Performance Assessment of 100W Fuel Cell. 11. Simulation study on Intelligent Controllers for Hybrid Systems.	5 BATCH (6 STUDENT S/ BATCH) & 2 CYCLES	

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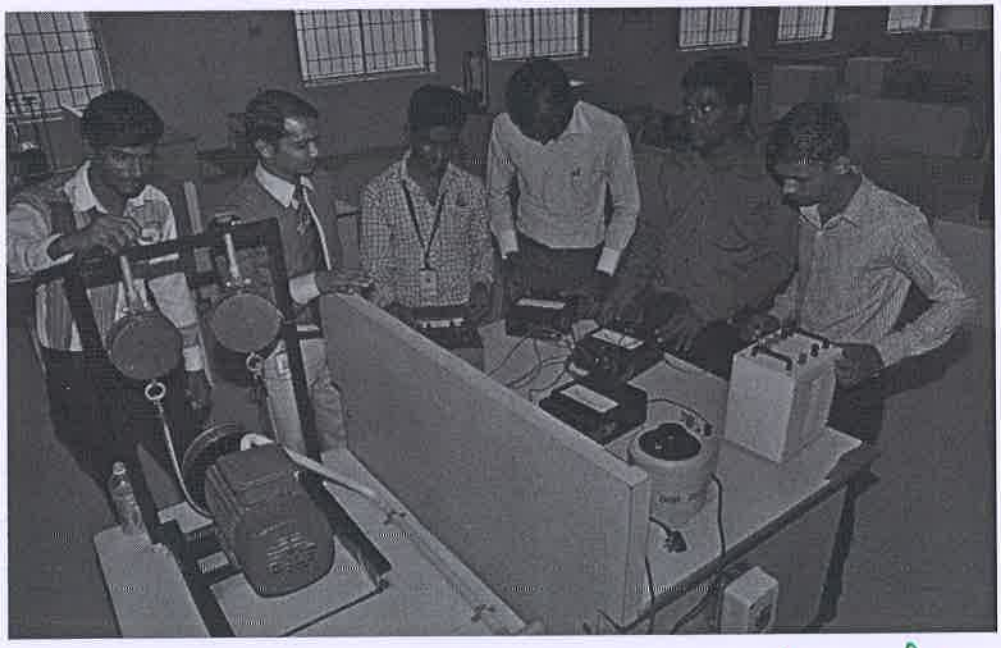
ELECTRICAL MACHINES LABORATORY – I



ELECTRICAL MACHINES LABORATORY – II

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S.No	LAB NAME	LIST OF EXPERIMENTS	BATCH SIZE (STUDENTS)	REMARKS
1	**Data Structures Laboratory**	1. Array implementation of Stack and Queue ADTs 2. Array implementation of List ADT 3. Linked list implementation of List, Stack and Queue ADTs 4. Applications of List, Stack and Queue ADTs 5. Implementation of Binary Trees and operations of Binary Trees 6. Implementation of Binary Search Trees 7. Implementation of AVL Trees 8. Implementation of Heaps using Priority Queues. 9. Graph representation and Traversal algorithms 10. Applications of Graphs 11. Implementation of searching and sorting algorithms 12. Hashing – any two collision techniques	5 BATCH (6 STUDENTS/ BATCH) & 2 CYCLES	
		1. Develop a Java application to generate Electricity bill. Create a class with the following members: Consumer no., consumer name, previous month reading, current month reading, type of EB connection (i.e		

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2	**Object Oriented Programming Laboratory**	domestic or commercial). Compute the bill amount using the following tariff. 2. If the type of the EB connection is domestic, calculate the amount to be paid as follows 3. First 100 units - Rs. 1 per unit 4. 101-200 units - Rs. 2.50 per unit 5. 201 -500 units - Rs. 4 per unit 6. 501 units - Rs. 6 per unit 7. If the type of the EB connection is commercial, calculate the amount to be paid as follows: 8. First 100 units - Rs. 2 per unit 9. 101-200 units - Rs. 4.50 per unit 10. 201 -500 units - Rs. 6 per unit 11. 501 units - Rs. 7 per unit	5 BATCH (6 STUDENTS/ BATCH) & 2 CYCLES	Z

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			12. Develop a java application to implement currency converter (Dollar to INR, EURO to INR, Yen to INR and vice versa), distance converter (meter to KM, miles to KM and vice versa) , time converter (hours to minutes, seconds and vice versa) using packages 13. Develop a java application with Employee class with Emp_name, Emp_id, Address, Mail_id, Mobile_no as members. Inherit the classes, Programmer, Assistant Professor, Associate Professor and Professor from employee class. Add Basic Pay (BP) as the member of all the inherited classes with 97% of BP as DA, 10 % of BP as HRA, 12% of BP as PF, 0.1% of BP for staff club fund. Generate pay slips for the employees with their gross and net salary		

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		14. Design a Java interface for ADT Stack. Implement this interface using array. Provide necessary exception handling in both the implementations 15. Write a program to perform string operations using Array List. Write functions for the following 16. Append - add at end 17. Insert – add at particular index 18. Search 19. List all string starts with given letter 20. Write a Java Program to create an abstract class named Shape that contains two integers and an empty method named print Area (). Provide three classes named Rectangle, Triangle and Circle such that each one of the classes extends the class Shape. Each one of the classes contains only the method print Area () that prints the area of the given shape 21. Write a Java program to implement user defined exception handling.		

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		22. Write a Java program that reads a file name from the user, displays information about whether the file exists, whether the file is readable, or writable, the type of file and the length of the file in bytes. 23. Write a java program that implements a multi-threaded application that has three threads. First thread generates a random integer every 1 second and if the value is even, second thread computes the square of the number and prints. If the value is odd, the third thread will print the value of cube of the number. 24. Write a java program to find the maximum value from the given type of elements using a generic function. 25. Design a calculator using event-driven programming paradigm of Java with the following options. 26. A.Decimal Manipulations B.Scientific manipulations 27. Develop a mini project for any application using Java concepts		

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3	**Database Management Systems Laboratory**	1. Data Manipulation Commands for inserting, deleting, updating and retrieving Tables and Transaction Control statements 2. Database Querying – Simple queries, Nested queries, Sub queries and Joins 3. Views, Sequences, Synonyms 4. Database Programming: Implicit and Explicit Cursors 5. Procedures and Functions 6. Triggers 7. Exception Handling 8. Database Design using ER modeling, normalization and Implementation for any application 9. Database Connectivity with Front End Tools 10. Case Study using real life database applications	5 BATCH (6 STUDENTS/ BATCH) & 2 CYCLES	

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4	**Operating Systems Laboratory**	1. Basics of UNIX commands 2. Write programs using the following system calls of UNIX operating system fork, exec, getpid, exit, wait, close, stat, opendir, readdir 3. Write C programs to simulate UNIX commands like cp, ls, grep, etc. 4. Shell Programming 5. Write C programs to implement the various CPU Scheduling Algorithms 6. 6.Implementation of Semaphores 7. Implementation of Shared memory and IPC 8. Bankers Algorithm for Deadlock Avoidance 9. Implementation of Deadlock Detection Algorithm	5 BATCH (6 STUDENTS/ BATCH) & 2 CYCLES	

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		7. Write C program to implement Threading & Synchronization Applications 8. Implementation of the following Memory Allocation Methods for fixed partition 9. a) First Fit b) Worst Fit c) Best Fit 10. Implementation of Paging Technique of Memory Management 11. Implementation of the following Page Replacement Algorithms 12. a) FIFO b) LRU c) LFU 13. Implementation of the various File Organization Techniques 14. Implementation of the following File Allocation Strategies a) Sequential b) Indexed c) Linked.		

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5	**Networks Laboratory**	1. Learn to use commands like Tcp dump, net stat, if config, ns lookup and trace route. 2. Capture ping and trace route PDUs using a network protocol analyzer and examine. 3. Write a HTTP web client program to download a web page. using TCP sockets. 4. Applications using TCP sockets like: 5. Echo client and echo server 6. Chat 7. File Transfer 8. Simulation of DNS using UDP sockets 9. Write a code simulating ARP /RARP protocols 10. Study of Network simulator (NS) and Simulation of Congestion Control Algorithms using NS 11. Study of TCP/UDP performance using Simulation tool 12. Simulation of Distance Vector/ Link State Routing algorithm 13. Performance evaluation of Routing protocols using Simulation tool 14. Simulation of error correction code (like CRC).	5 BATCH (6 STUDENTS/ BATCH) & 2 CYCLES	

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		1. Create a web page with the following using HTML. i) To embed an image map in a web page. ii) To fix the hot spots. iii) 1.Show all the related information when the hot spots are clicked 2. Create a web page with all types of Cascading style sheets 3. Client Side Scripts for Validating Web Form Controls using DHTML 4. Installation of Apache Tomcat web server 5. Write programs in Java using Servlets: To invoke servlets from HTML forms. Session Tracking		

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6	**Web Technology Laboratory**	6. Write programs in Java to create three-tier applications using JSP and Databases 7. For conducting on-line examination. 8. For displaying student mark list. Assume that student information is available in a database which has been stored in a database server. 9. Programs using XML – Schema – XSLT/XSL 10. Programs using DOM and SAX parsers 11. Programs using AJAX 12. Consider a case where we have two web Services- an airline service and a travel agent and the travel agent is searching for an airline. 13. Implement this scenario using Web Services and Data base	5 BATCH (6 STUDENTS/ BATCH) & 2 CYCLES	

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7	**Mobile Application Development Laboratory**	1. Develop an application that uses GUI components, Font and Colours 2. Develop an application that uses Layout Managers and event listeners 3. Write an application that draws basic graphical primitives on the screen 4. Develop an application that makes use of databases 5. Develop an application that makes use of Notification Manager 6. Implement an application that uses Multi-threading 7. Develop a native application that uses GPS location information 8. Implement an application that writes data to the SD card 9. Implement an application that creates an alert upon receiving a message 10. Write a mobile application that makes use of RSS feed 11. Develop a mobile application to send an email 12. Develop a Mobile application for simple needs (Mini Project)	5 BATCH (6 STUDENTS/ BATCH) & 2 CYCLES	

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8	**Object Oriented Analysis and Design Laboratory**	1. Identify a software system that needs to be developed. 2. Document the Software Requirements Specification (SRS) for the identified system. 3. Identify use cases and develop the Use Case model. 4. Identify the conceptual classes and develop a Domain Model and also derive a Class Diagram from that. 5. Using the identified scenarios, find the interaction between objects and represent them using UML Sequence and Collaboration Diagrams 6. Draw relevant State Chart and Activity Diagrams for the same system. 7. Implement the system as per the detailed design 8. Test the software system for all the scenarios identified as per the use case diagram 9. Improve the reusability and maintainability of the software system by applying appropriate design patterns. 10. Implement the modified system and test it for various scenarios	5 BATCH (6 STUDENTS/ BATCH) & 2 CYCLES	

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9	**FOSS and Cloud Computing Laboratory**	1. To learn and develop applications using gcc and make 2. To learn and use version control systems 3. To develop web applications in cloud 4. To learn the design and development process involved in creating a cloud based application 5. To learn to implement and use parallel programming using Hadoop 6. Use gcc to compile c-programs. Split the programs to different modules and create an application using make command. Use version control systems command to clone, commit, push, fetch, pull, checkout, reset, and delete repositories. 8. InstallVirtualbox/VM ware Workstation with different flavours of linux or windows OS on top of windows7 or 8. 9. Install a C compiler in the virtual machine created using virtual box and execute Simple Programs 10. Install Google App Engine. Create hello world app and other simple web applications using python/java.	5 BATCH (4 STUDENTS/ BATCH) & 2 CYCLES	

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		11. Use GAE launcher to launch the web applications. 12. Simulate a cloud scenario using Cloud Sim and run a scheduling algorithm that is not present in Cloud Sim. 13. Find a procedure to transfer the files from one virtual machine to another virtual machine. 14. Find a procedure to launch virtual machine using try stack (Online Open stack Demo Version) 15. Install Hadoop single node cluster and run simple applications like word count. 16. Perform encryption, decryption using the following substitution techniques 17. (i) Ceaser cipher, (ii) playfair cipher iii) Hill Cipher iv) Vigenere cipher 18. Perform encryption and decryption using following transposition techniques 19. i) Rail fence ii) row & Column Transformation 20. Apply DES algorithm for practical applications. 21. Apply AES algorithm for practical applications. 22. Implement RSA Algorithm using HTML and JavaScript 23. Implement the Diffie-	5 BATCH (3 STUDENTS/ BATCH) & 2 CYCLES	

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		Hellman Key Exchange algorithm for a given problem. 24. Calculate the message digest of a text using the SHA-1 algorithm. 25. Implement the SIGNATURE SCHEME - Digital Signature Standar 26. Demonstrate intrusion detection system (ids) using any tool eg. Snort or any other s/w. 27. Automated Attack and Penetration Tools Exploring N-Stalker, a Vulnerability Assessment Tool 28. Defeating Malware i) Building Trojans 29. Rootkit Hunter		

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2. PARTICIPATIVE LEARNING

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PARTICIPATIVE LEARNING

ACADEMIC YEAR 2021-22

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2.1CLUB ACTIVITES

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2.1 CLUB ACTIVITES

WOMEN EMPOWERMENT CELL

Event Organized By	Women Empowerment cell of JKKMCT
Name of the Convenor	Mrs. V. Mohanapriya
Name of the Members	Mrs. U.Sasikala AP/ ECE Ms.S.Poornima, AP/English Ms.S.Samyuktha, AP/S&H Mrs..M.Nirosha AP/CSE Ms.V.Sathiyapriya AP/Civil Mrs.M.Kavitha, AP/S&H Mrs.R.Kavitha, AP/IT Mrs.M.Savithiri, AP/IT
Name of the Programme	International day for the elimination of Violence against women
Venue	Seminar Hall
Chief Guest	Mrs.A.Indirani Sobhiya, Inspector of Police, AWPS, Sathyamangalam. Mrs.A.J.Kalamani Head Constable, Sathyamangalam , Mrs.Priyadharshni Head Constable, Sathyamangalam
Date	25th November 2021

- Women Empowerment cell of JKKMCT conducted a programme on "International day for the elimination of Violence against women" on 25th November 2021.
- The programme was organized by Women Empowerment Cell on 25.11.21 from 2.30 pm to 4.30 pm, the chief guest Mrs.A.Indirani Sobhiya, Inspector of Police, AWPS, Sathyamangalam, Mrs.A.J.Kalamani Head Constable, Sathyamangalam ,Mrs.Priyadharshni Head Constable, Sathyamangalam, gave motivational speech for students to protect themselves against violence in our society. It was highly useful and energetic for students.
- Students from various branches of Engineering enrolled themselves and actively participated in the programme.
- In developing and developed countries alike, millions women do not finish school because they are forced (by their society, by their circumstances or by the threat of violence) to focus on household, care giving and child-rearing responsibilities.

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INTERNATIONAL DAY FOR THE ELIMINATION OFVIOLENCE AGAINST WOMEN

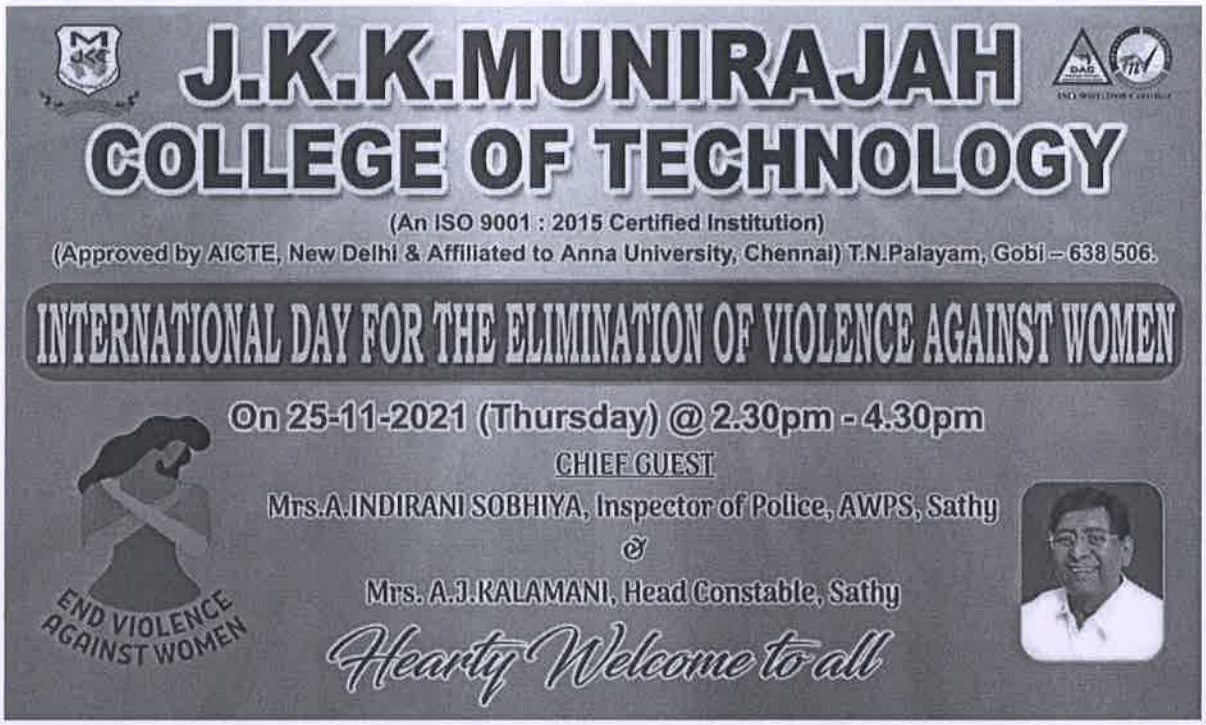
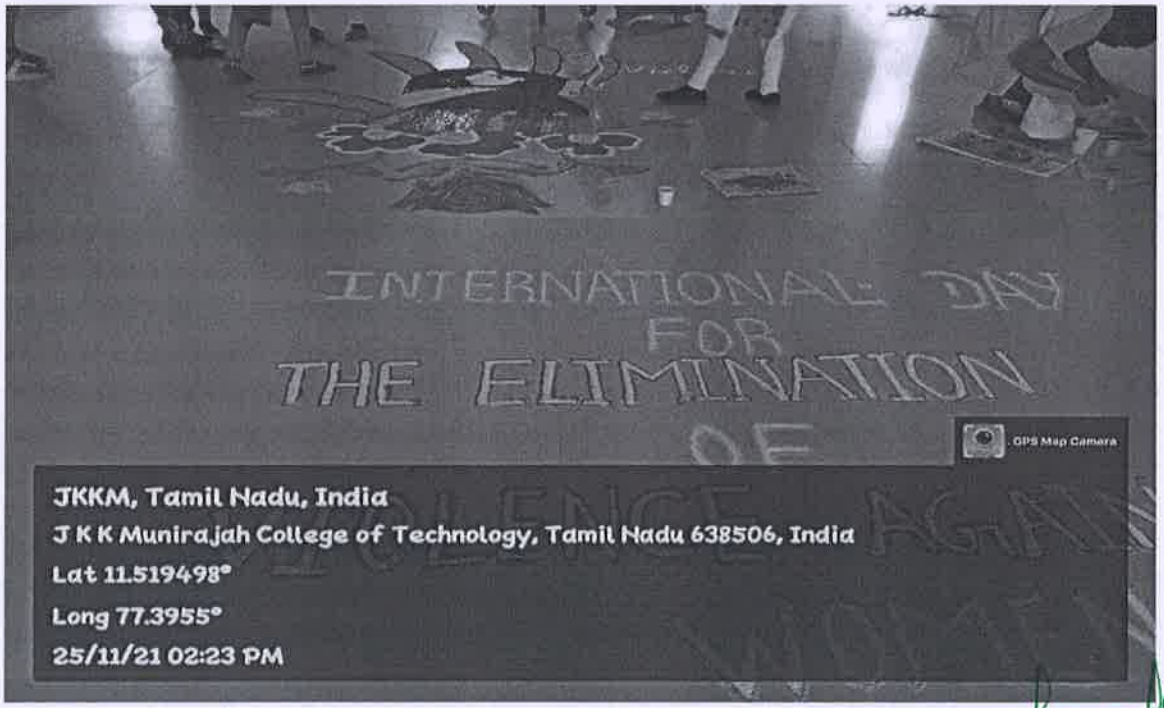


Photo of International Day for the Elimination of Violence against Women Flex



Photos of Women's Empowerment Cell -Rangoli on 25.11.2021

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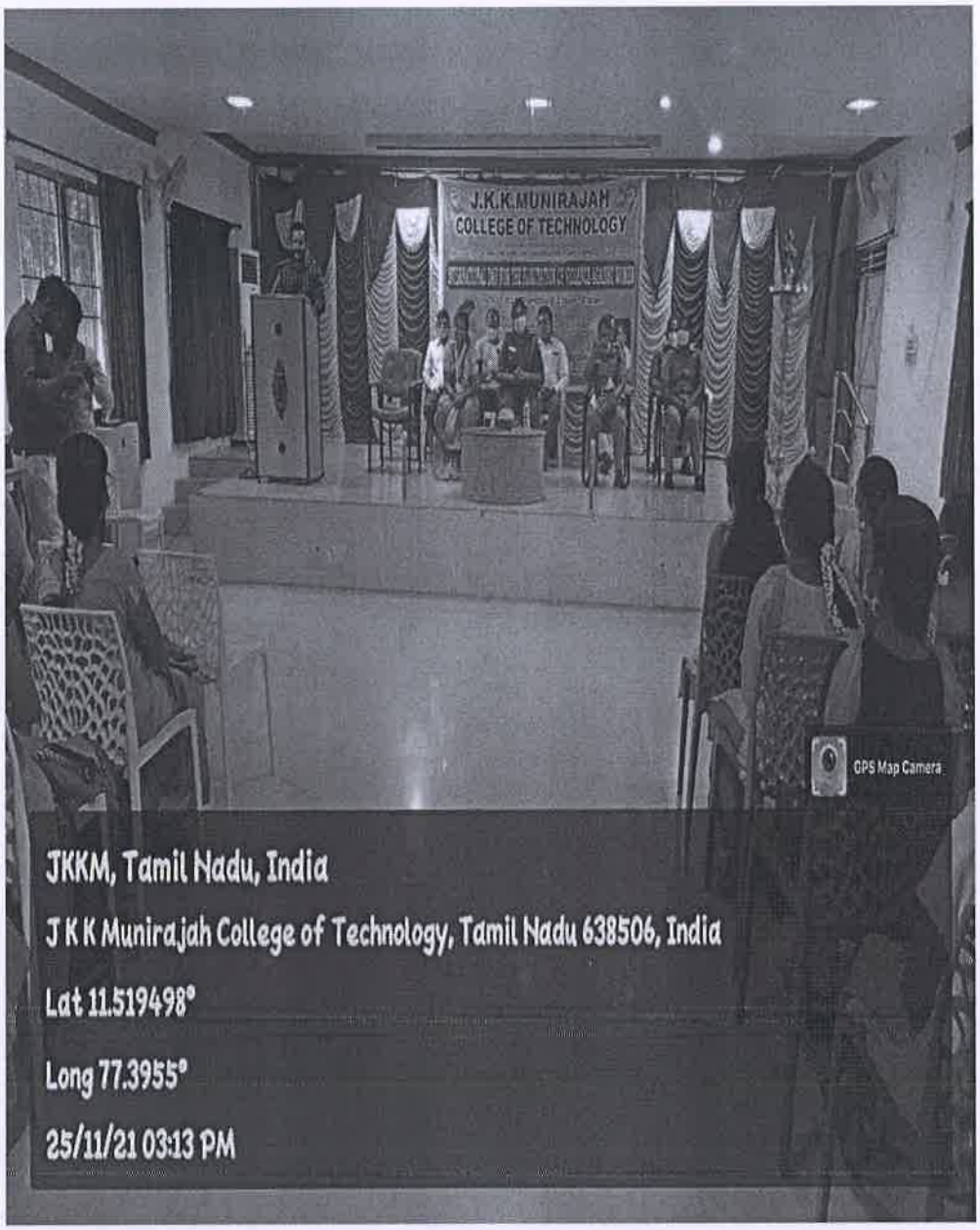

Photos of Women's Empowerment Cell –Principal Address

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WOMEN'S EMPOWERMENT CELL

Event Organized By	Women Empowerment cell of JKKMCT
Name of the Convenor	Mrs. V. Mohanapriya
Name of the Members	Mrs. U.Sasikala AP/ ECE Ms.S.Poornima, AP/English Ms.S.Samyuktha, AP/S&H Mrs..M.Nirosha AP/CSE Ms.V.Sathiyapriya AP/Civil Mrs.M.Kavitha, AP/S&H Mrs.R.Kavitha, AP/IT Mrs.M.Savithiri, AP/IT
Name of the Programme	Womens Day Celebration
Venue	Seminar Hall
Chief Guest	K.Nagasandhoshini, B.Com., LLB.,(Advocate) & Mrs.V.Vijaya,B.Lit.,
Date	8th March 2022

- Women's empowerment is a milestone in education because it allows women to meet the obstacles, face up to their conventional position & improve their lives. As women become more educated, they can obtain the specialist the skills that qualify them for more diverse positions.
- Women's Day Celebration" on 8th March 2022. Students from various branches of Engineering enrolled themselves and actively participated in the programme.
- The program was organized by WomenEmpowerment Cell on 08.03.2022 from 2.30 pm to 4.30 pm. The chief guests Mrs. K.Nagasandhoshini, B.Com., LLB.,(Advocate) & Mrs.V.Vijaya,B.Lit., who gave the knowledge of laws & rights of women for students& faculty members to save & enhance themselves towards the developing society. It makes the day more meaningful with its core theme – "Experience the impact when you break the bias".
- Education is the key for women to achieve economic independence. Although women in the majority of countries have the right to an education, equal access to education for women remains a problem.

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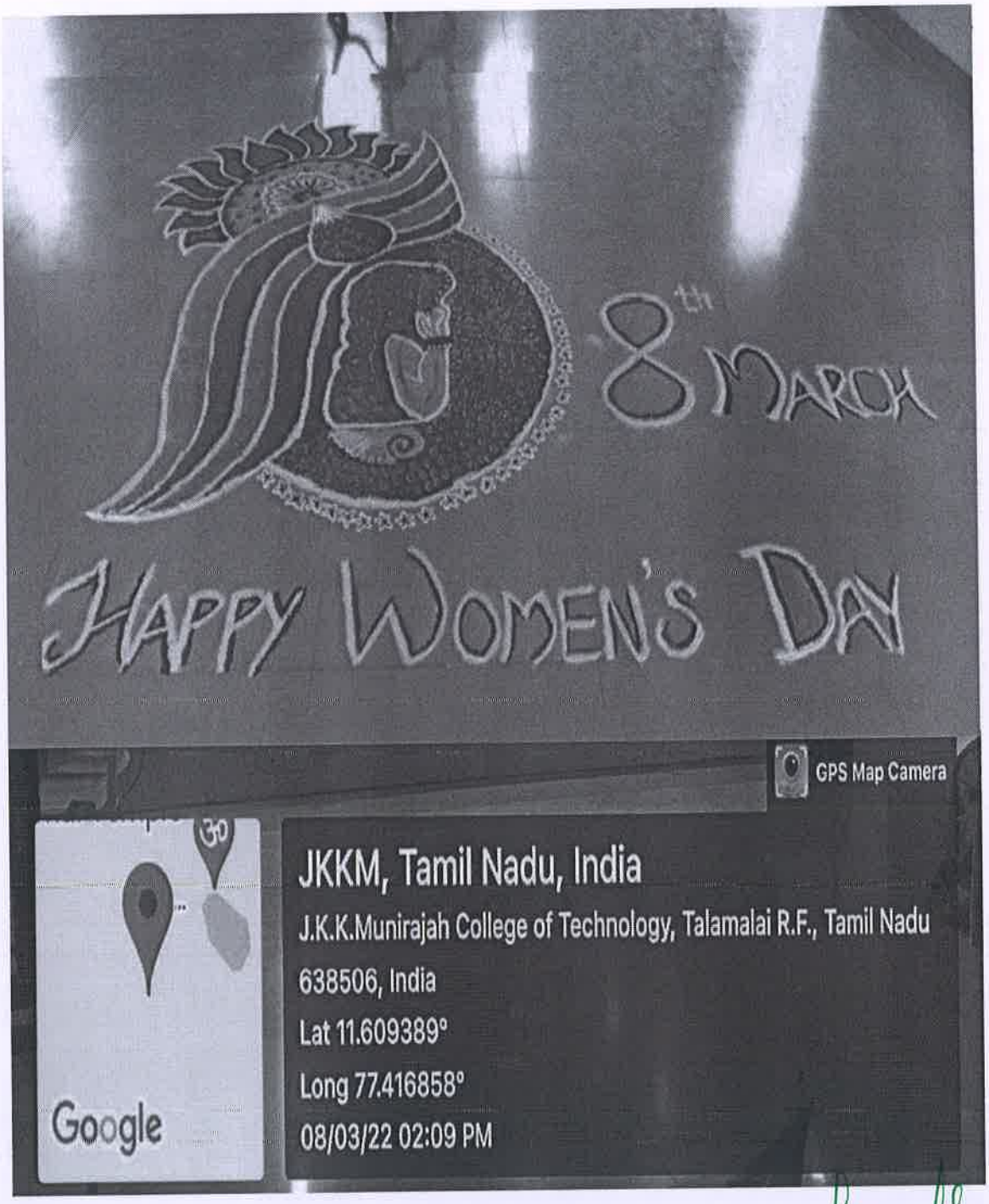
PHOTO GALLERY

WOMENS DAY CELEBRATION - 2022



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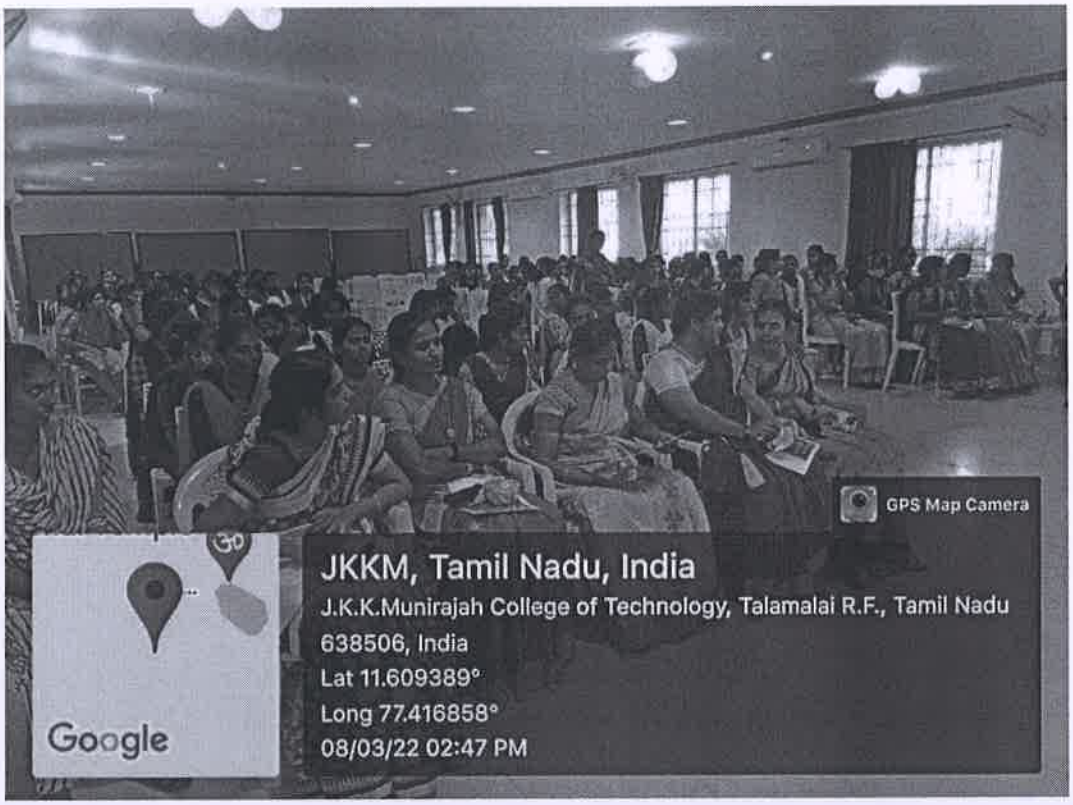

PHOTO OF THE EVENT

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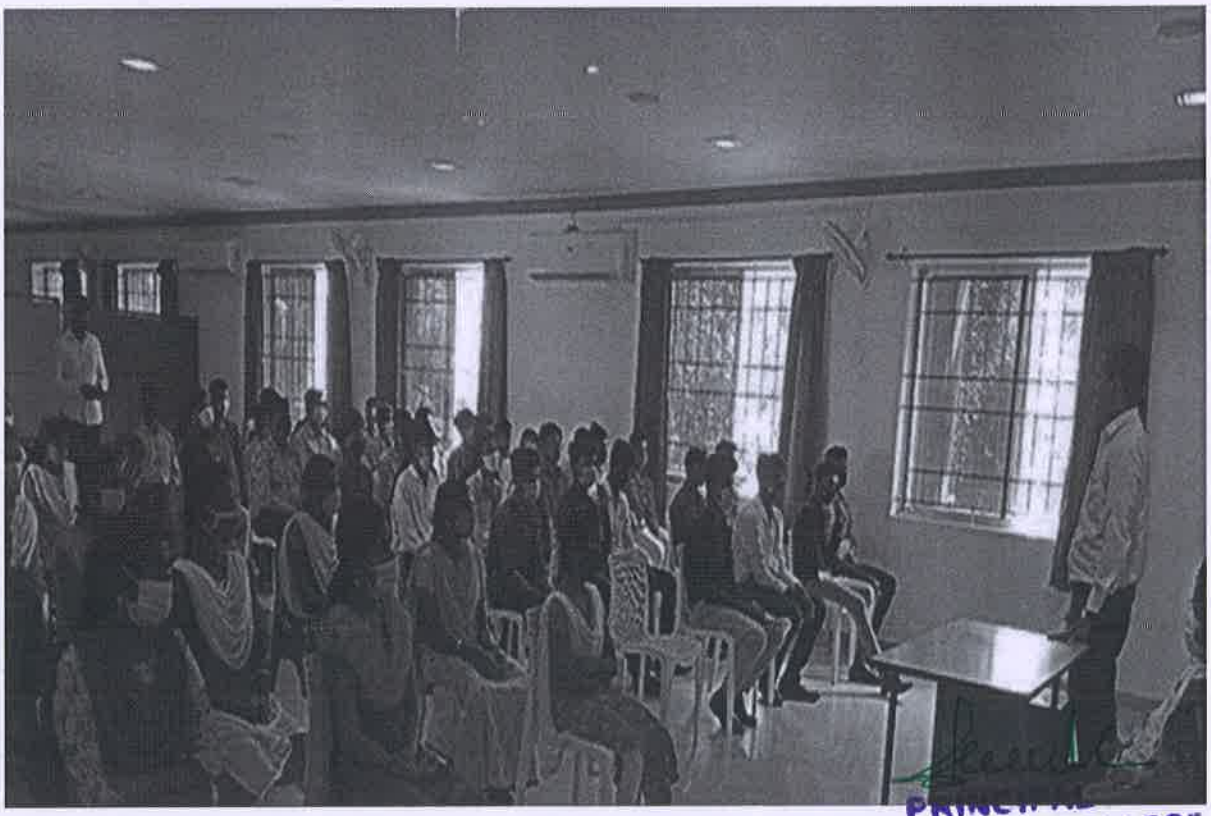
YOUTH RED CROSS CLUB

Event Organized By	**Youth Red Cross Club of JKKMCT**
Name of the Coordinators	Mr. S. Satheeshkumar AP / EEE Mr. G. Ramachandran, AP /EEE
Name of the Programme	NATIONAL YOUTH DAY
Venue	Seminar Hall
Date	12.01.2022

- Youth Red Cross club of JKKMCT conducted a programme on "NATIONAL YOUTH DAY on 12 january 2022. Students from various branches of Engineering enrolled themselves and actively participated in the programme.
- On that day the youth red cross club was conducted the " VOTERS AWARENESS RALLY". That started from college campus and ended to T.N palayam.
- Also they have conducted some exhibitions of young people's achievements in the campus.

PHOTO GALLERY



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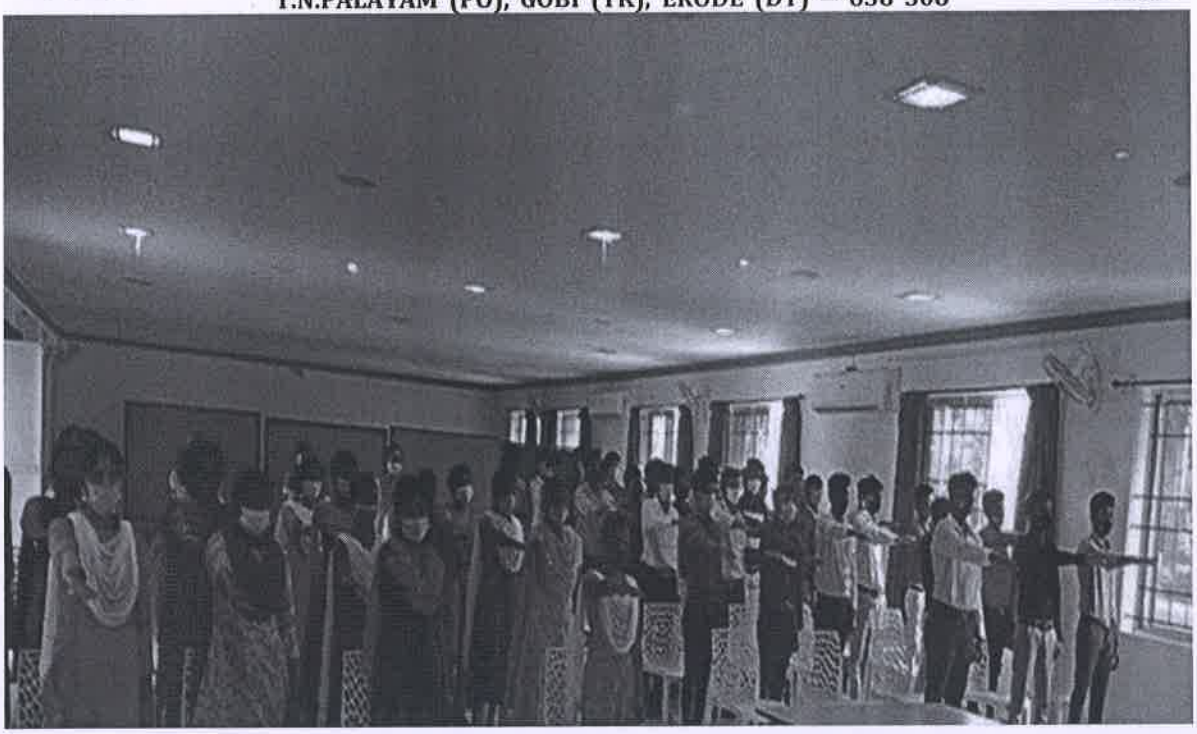

NATIONAL SERVICE SCHEME CLUB

Event Organized By	NSS CLUB
Name of the Faculty Incharge	Mr. A.Vigneshkumar, AP /EEE
Name of the Student Coordinator	G.Naveenkumar ,III Year/EEE
Name of the Programme	FIT INDIA FREEDOM RUN
Activity	Walking
Venue	JKKMCT
Covered distance	4 KM
Date	25.09.2021

NSS ACTIVITY: FIT INDIA FREEDOM RUN

- "FIT INDIA FREEDOM RUN" activity was organized by our Principal, J.K.K.Munirajah College of Technology from 13th August 2021 to 2nd October 2021 to encourage fitness and help us all to get freedom from odesity, laziness, stress, diseases etc.
- Our Students were participated in running, walking and yoga exercises.
- Our all NSS and RRC students were participated in that programme.

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PHOTO GALLERY

Fit India Freedom at JKKMCT on 25.09.2021

Fit India Freedom Run activity at JKKMCT on 25.09.2021

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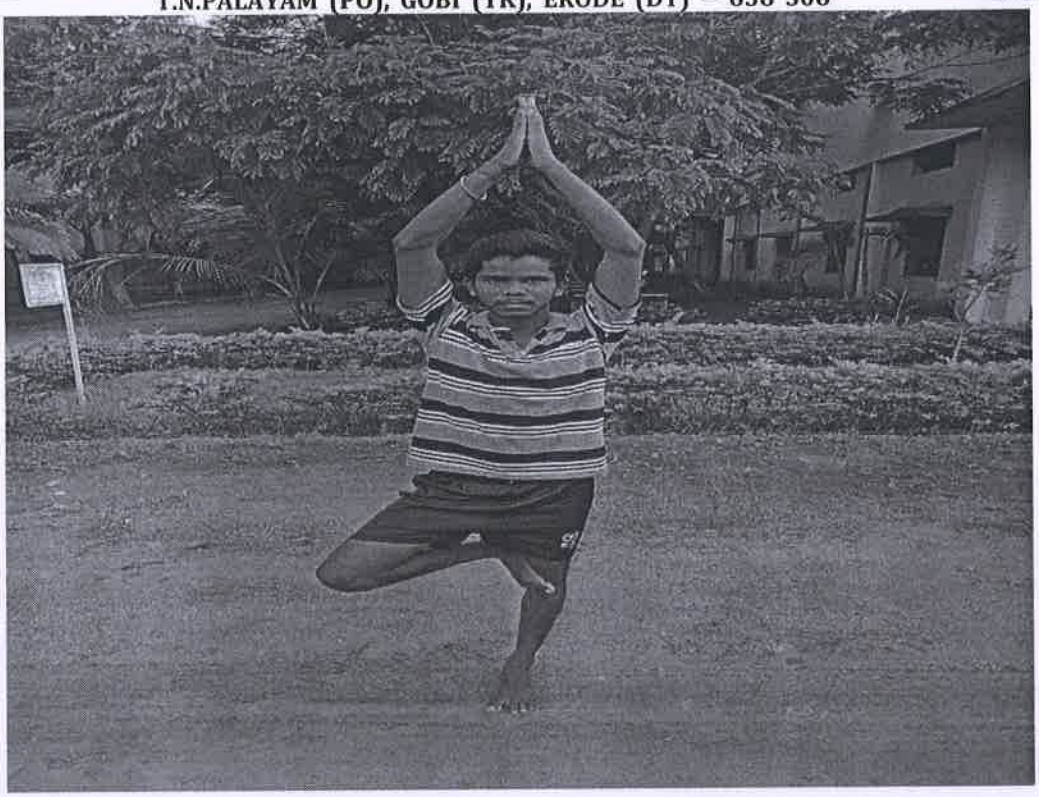
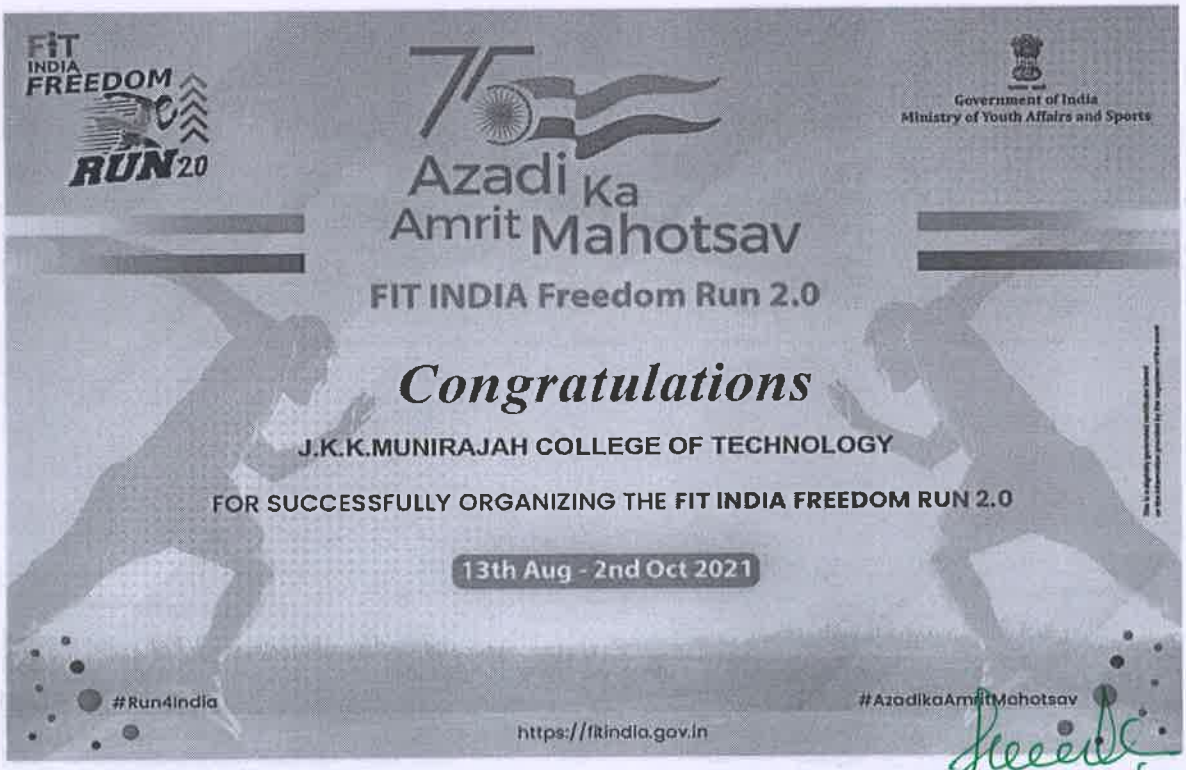


Fit India Freedom Yoga activity at JKKMCT on 25.09.2021



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CERTIFICATE OF JKKMCT FOR ORGANIZING THE EVENT

CERTIFICATE FOR PARTICIPATION OF STUDENT

Event Organized By	**NSS CLUB**
Name of the Program Officer	Mr. A.Vigneshkumar, AP /EEE
Name of the Programme	Covid-19 Vaccination Campaign- I
Venue	TNPalayam
Date	2nd September 2021

- The "**COVID-19 VACCINATION CAMPAIGN- I**" was organized by our Principal, Dr.K.Sridharan M.E. Ph.D. J.K.K. Munirajah College of Technology. As per the guidelines of UGC we conducted Covid-19 Vaccination camp for our all (UG) students, teaching and non-teaching staffs on 2nd September 2021.
- A Health inspector from Primary Health centre from T.N. Palayam had conducted Covid-19 Vaccination camp at T.N.Palayam our students nearly 50 got vaccinated against Covid-19.
- After Vaccination Doctor instructed to get second dose of vaccination after the completion of 84 days. The injected area should be kept clean. Although bathing on the day of vaccination is not a problem and do not rub the injected area.
- Our NSS Students were participated in that Covid-19 Vaccination campaign-Phase-I.

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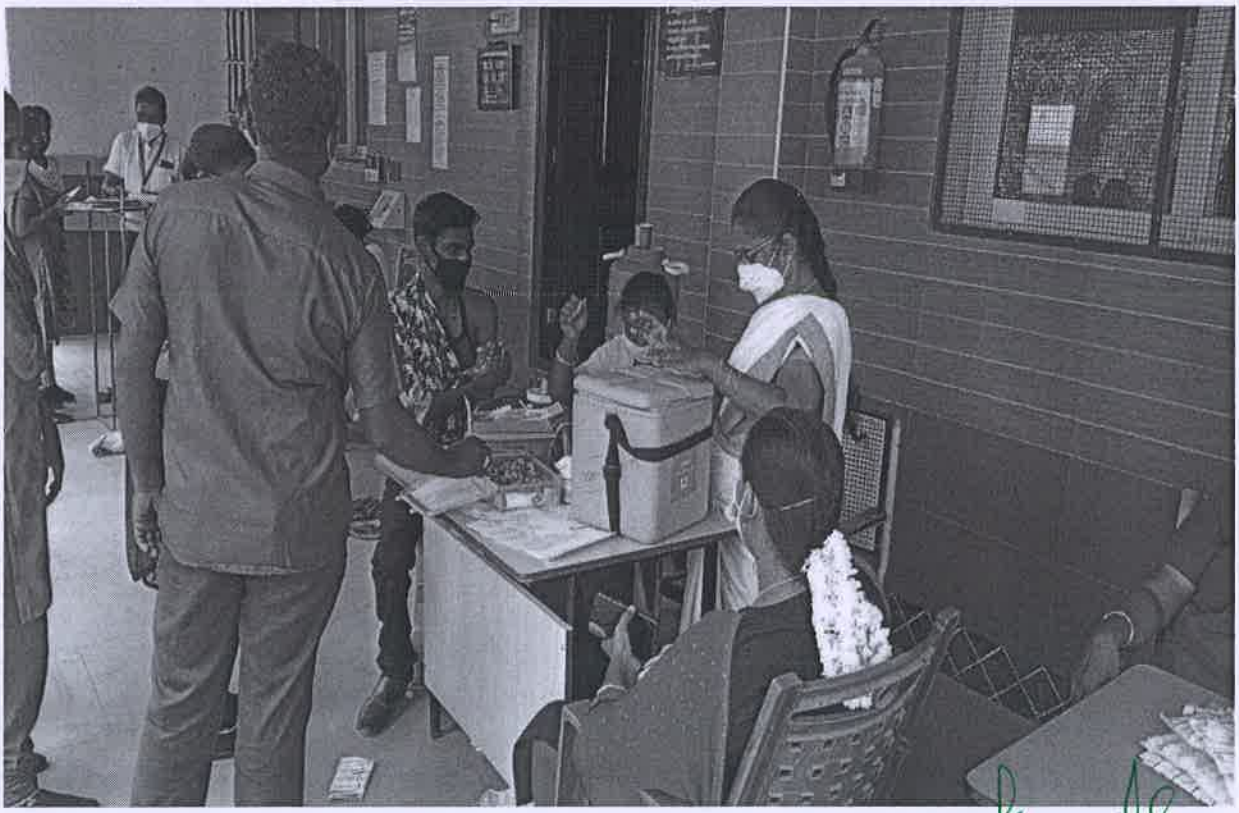

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PHOTO OF THE EVENT

RED RIBBON CLUB

Event Organized By	**Red Ribbon Club of JKKMCT**
Name of the Coordinators	Mr. S. Satheeshkumar AP / EEE Mr. C.Sasikumar AP / EEE Mr. S.Umesh, AP /EEE
Name of the Programme	BLOOD DONATION CAMP
Venue	Seminar Hall
Date	14.06.2021

- The "BLOOD DONATION CAMP" was conducted on 14th june 2021, world blood donor day by the RED RIBBON CLUB in JKKM COLLEGE OF TECHNOLOGY.
- On that day various branches of students and staffs have donated blood.
- The aim of this camp was to raise awareness of the need for safe blood products for transfusion and of the critical contribution voluntary, unpaid blood donors make to national health systems.

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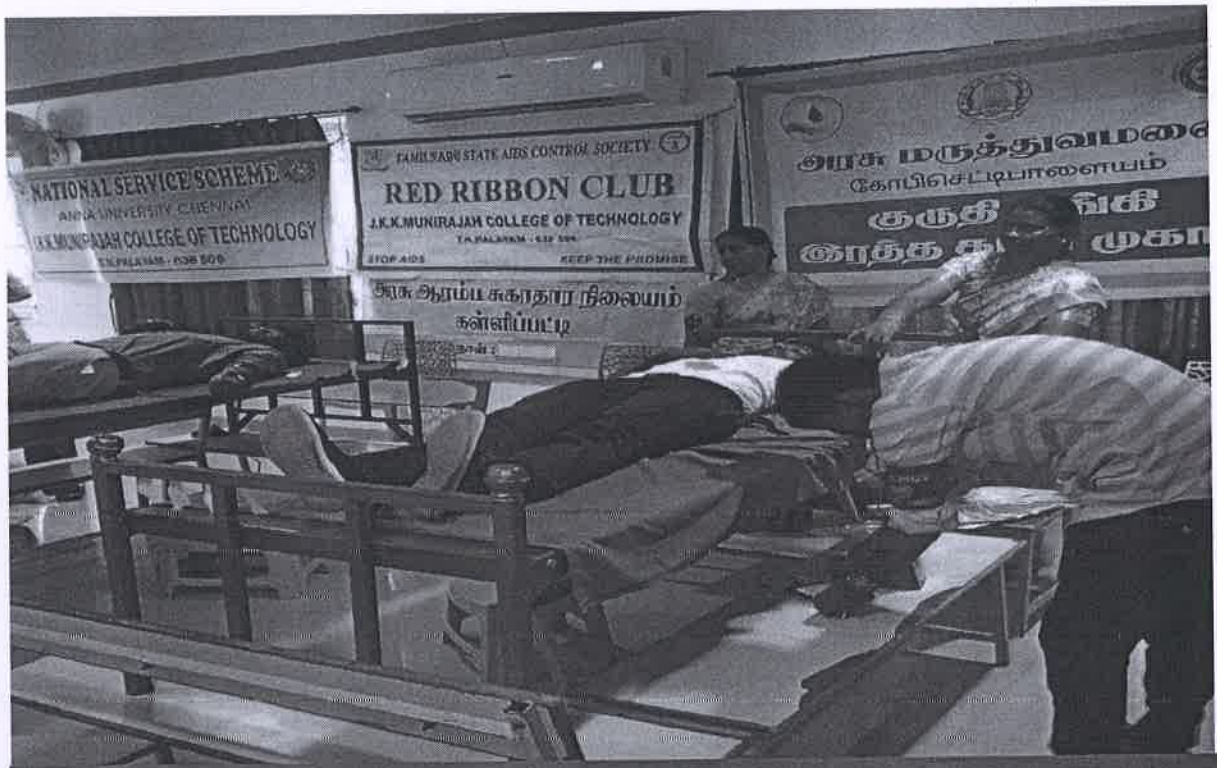

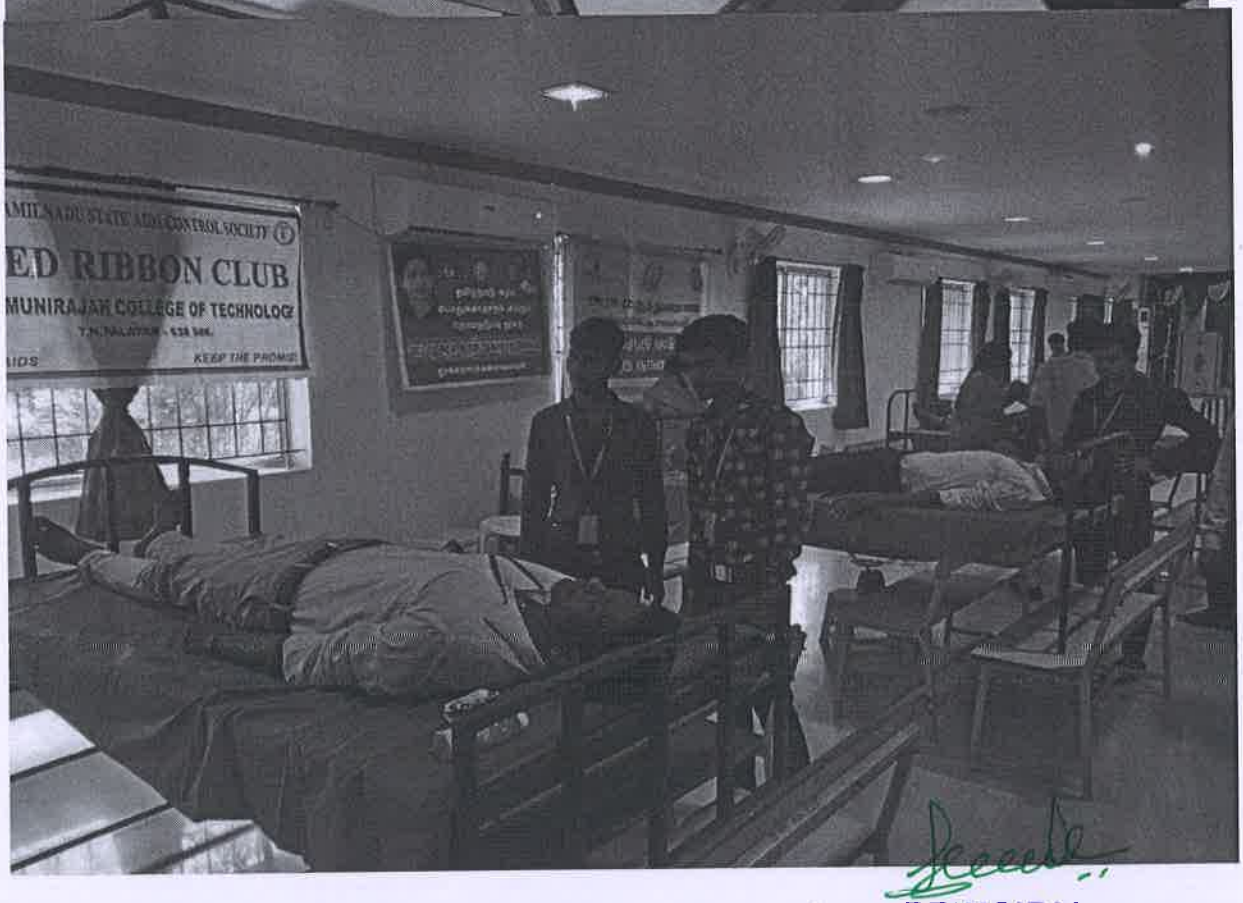

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SPORTS CLUB

Event Organized By	Sports Club of JKKMCT
Name of the Sports Club Members	Mr. R. Murugesan Director of Physical Education
Name of the Programme	SPORTS DAY
Venue	PLAYGROUNDINJKKM INSTITUTIONS
Date	29.08.2021

- The sports and fine arts club was conducted "Sports Day" on 29th August 2021 in play ground at JKKM institutions..
- Mr.R.Murugesan, Director of physical education has co ordinated with the sports and fine arts club members.
- On that day various sports games are conducted for students like Ball badminton,volleyball, Foot ball; chess,Running race etc….

PHOTO GALLERY

PHOTO OF VOLLEY BALL MATCH

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ECO & NATURE CLUB

Event Organized By	**Eco & Nature Club of JKKMCT**
Name of the Convenor	Mr. I. Benazir Banu AP/ Civil Mr. T.R. Palanisamy, Administrative Officer
Name of the Members	Mr. M. Ravikumar, Estate Officer Mr. S. Gowrishankar, Office Superintendent Mr. R. Rajamanickam, Gardener

PHOTO GALLERY

PHOTO OF JKKMCT'S ECO FRIENDLY CAMPUS

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ENTREPRENEURSHIP DEVELOPMENT CELL ACTIVITIES

Event Organized By	**Entrepreneurship Development Cell of JKKMCT**
Name of the Coordinator	Mr.E.R.Vadivel, HOD/MBA, JKKMCT
Name of the Assistant Coordinator's	Ms.S.Vidhya AP /MBA Mr..Prasanth AP /MBA
Name of the Resource Person	Mr.Laxmanan Narayanan
Name of the Programme	A Programme On " A Successful Entreprenur"
Venue	Seminar Hall
Number of Participants	56
Date	20th October 2021

- A Successful Entrepreneurship programme organized by Department of Management, J.K.K. Munirajah College of Technology on20.10.2021. The aim of the seminar is to create knowledge among the participants about Entrepreneurship Development. The total no of participants is 56Students.
- Entrepreneurship Development cell of JKKM conducted a programme on "A successful Entreprenur", on 20th October 2021. Students from various branches of Engineering enrolled themselves into 13 batches and actively participated in the programme. The contest was held between 11.00 am to 3.30 pm at SEMINAR Hall (Ground floor).
- Mr.E.R.Vadivel, Professor and Head, Departmentof Management, Delivered the welcome address and he extended his warm welcome to the resource person and Participants.
- The presidential address was given by **Dr.K.Sridharan**, Principal, and Jkk Munirajah College of Technology. Further, he highlighted the importance of Entrepreneurship Development on Employment Generation.
- **Mr.Laxmanan Narayanan, M R** color lab, Gobi., played Chief Guest role and he delivered the importance Entrepreneurship Development for young Generation. He clearly explained how to become successful entrepreneur. The seminar was very useful and fashionable by participants from the students.
- The seminar session ended with intensive interaction with the Participants and all the queries were cleared by Mr. Laxmanan Narayanan, M R color lab, Gobi.
- The program was successfully completed with vote of thanks, delivered by Ms.S.Vidhya, Assistant professor from Department of management.

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PHOTO GALLERY

PHOTO OF THE EVENT DATED ON 20.10.2021

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2.2 CONFERENCE

AUTOMOBILE ENGINEERING

INTERNATIONAL CONFERENCE ON EMERGING TRENDS IN MECHANICAL AND AUTOMOBILE ENGINEERING

Event Organized By	AUTOMOBILE DEPARTMENT OF JKKMCT
Name of the Event	INTERNATIONAL CONFERENCE
Date of the Event	**06-08-2021**
Number of Participants	40
Google meet link	**https://meet.google.com/cwn-ngte-sra**
Name of Chief Guest/Speakers	Dr.M.Mohanraj.M.E.,Ph.D,

- An International Conference On "Emerging Trends In Mechanical And automobile Engineering" was conducted On 06-08-2021with 40 Participants through Google Meet And Organized By Department of Automobile Engineering.
- The automotive industry began in the 1860s with hundreds of manufacturers that pioneered the horseless carriage. For many decades, the United States led the world in total automobile production.
- In 1929, before the Great Depression, the world had 32,028,500 automobiles in use, and the U.S. automobile industry produced over 90% of them. At that time, the U.S. had one car per 4.87 persons. After 1945, the U.S. produced about 75 percent of world's auto production.
- In 1980, the U.S. was overtaken by Japan and then became world leader again in 1994. In 2006, Japan narrowly passed the U.S. in production and held this rank until 2009, when China took the top spot with 13.8 million units. With 19.3 million units manufactured in 2012, China almost doubled the U.S. production of 10.3 million units, while Japan was in third place with 9.9 million units. From 1970 (140 models) over 1998 (260 models) to 2012 (684 models), the number of automobile models in the U.S. has grown exponentially.
- Early car manufacturing involved manual assembly by a human worker. The process evolved from engineers working on a stationary car, to a conveyor belt system where the car passed through multiple stations of more specialized engineers. Starting in the 1960s, robotic equipment was introduced to the process, and today most cars are produced largely with automated machinery.

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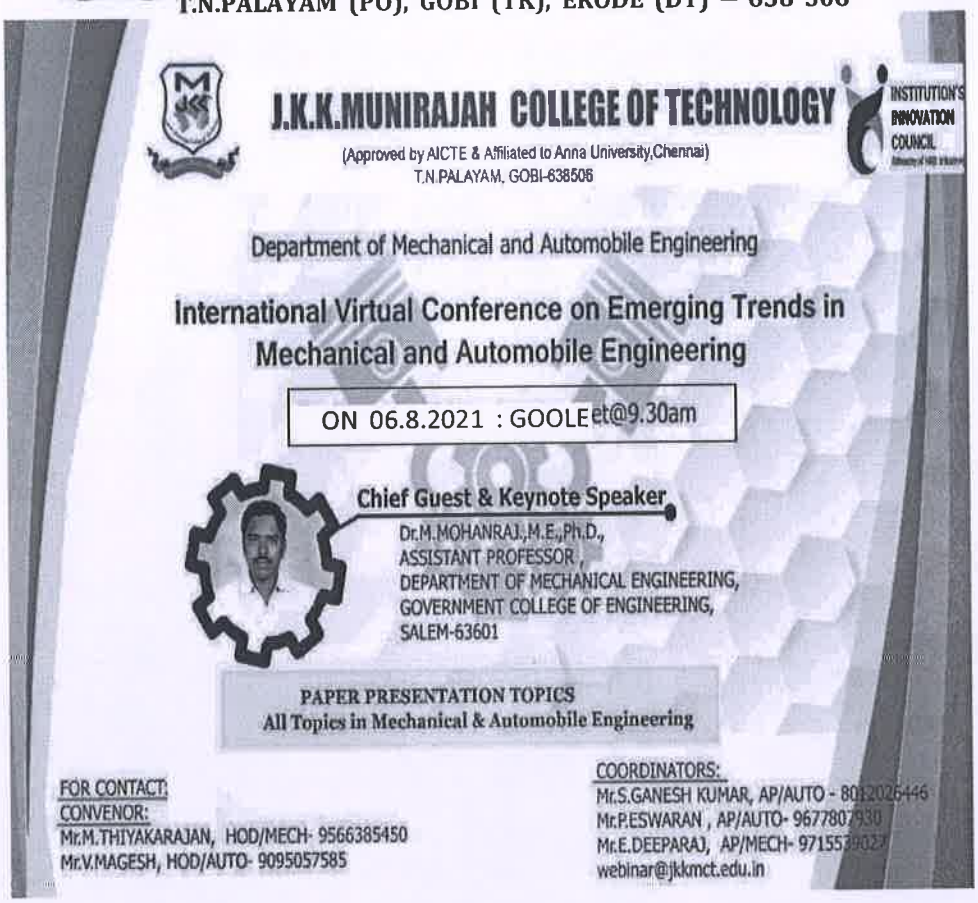

INTERNATIONAL VIRTUAL CONFERENCE ON EMERGING TRENDS IN MECHANICAL & AUTOMOBILE ENGINEERING

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2.3 SEMINAR & WEBINAR

AUTOMOBILE ENGINEERING

NATIONAL LEVEL SEMINAR ON SCOPE OF NON DESTRUCTIVE TESTING

Event Organized By	AUTOMOBILE DEPARTMENT OF JKKMCT
Name of the Event	NATIONAL LEVEL SEMINAR
Date of the Event	30-05-2022
Number of Participants	40
Venue	JKKMCT Seminar Hall
Name of Chief Guest/Speakers	Dr.R.MANIKANDAN, M.D

- Pursuing this field as a career, you will be working towards facilitating skill development amongst budding entrepreneurs and assisting them to tackle their struggles with building their businesses.
- The entrepreneurship development process has been efficient and effective in the local markets and on the local entrepreneurs who know about it.
- If you have planning to conduct sessions and programs related to this, the best way to begin is to reach out to local markets.
- Entrepreneurship Development is defined as a process of enhancing the skill set and knowledge of entrepreneurs regarding the development, management and organization of a business venture while keeping in mind the risks associated with it.
- These localities can understand and absorb the knowledge more quickly and can apply it in the current scenario; the effects of the program can easily and quickly be seen within the community.

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ORGANISED BY DEPARTMENT OF AUTOMOBILE

NATIONAL LEVEL SEMINAR ON SCOPE OF NON DESTRUCTIVE TESTING

RESOURCE PERSON

MR.R.MANIKANDAN,
MANAGING DIRECTOR,
QUEENS INDIA ENGINEERING SERVICES
ERODE DT –TAMILNADU.

ON 30.5.2022

COORDINATORS :
MR.S.GANESHKUMAR ,AP/AUTO -8012026446
MR.V.P.ARUMURUGAN,AP/AUTO -9789444882
SEMINAR@JKKMCT.EDU.IN

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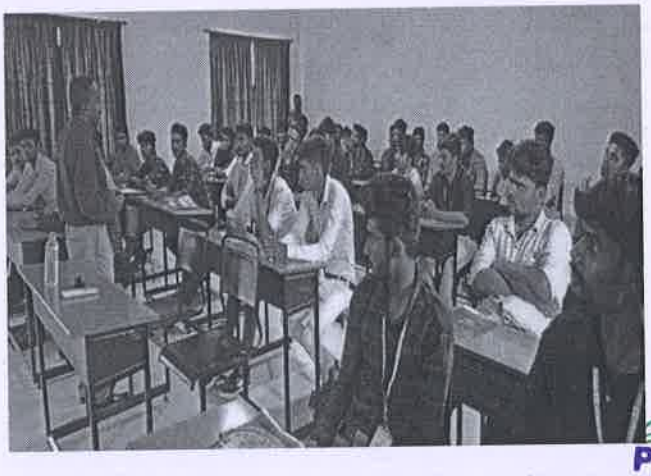
AUTOMOBILE ENGINEERING

NATIONAL LEVEL SEMINAR ON INDUSTRY 4.0

Event Organized By	AUTOMOBILE DEPARTMENT OF JKKMCT
Name of the Event	NATIONAL LEVEL SEMINAR
Date of the Event	15.03.2022
Number of Participants	35
Venue	MECHANICAL SMART CLASS
Name of Chief Guest/Speakers	Dr. M.Bharathiraja M.E., Ph.D. Head And Associate Professor, Automobile Engineering, Bannari Amman Institute Of Technonlogy, Sathy

- Participants learned revolutionizing the way companies manufacture, improve and distribute their products. Manufacturers are integrating new technologies, including Internet of Things (IoT), cloud computing and analytics, and AI and machine learning into their production facilities and throughout their operations.
- And also learning these smart factories are equipped with advanced sensors, embedded software and robotics that collect and analyze data and allow for better decision making. Even higher value is created and students analyzing the large amounts of big data collected from sensors on the factory floor ensures real-time visibility of manufacturing assets and can provide tools for performing predictive maintenance in order to minimize equipment downtime.

PHOTO GALLERY



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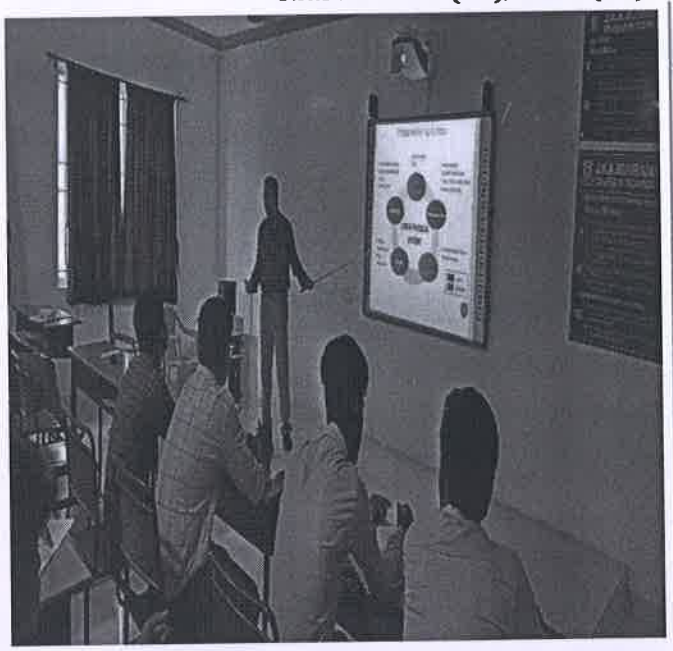

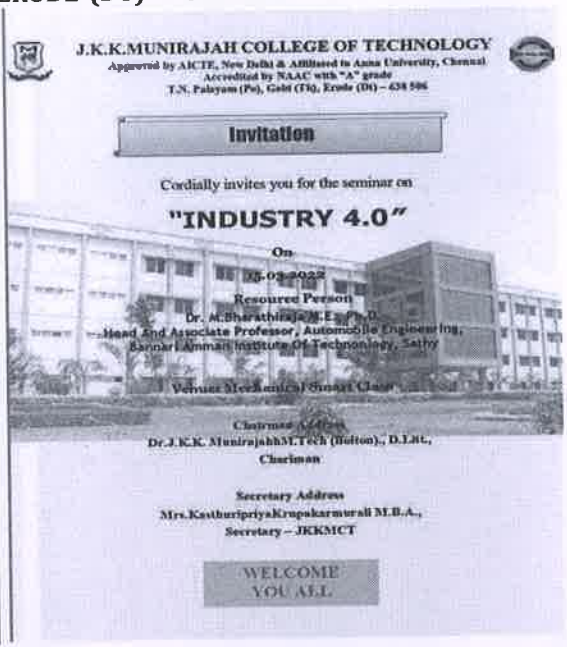

PHOTO OF NATIONAL LEVEL SEMINAR ON INDUSTRY 4.0

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

NATIONAL LEVEL SEMINAR ON RECENT TRENDS IN BROADBANDWIRELESS SENSOR NETWORKS

Event Organized By	ECE DEPARTMENT OF JKKMCT
Name of the Event	Seminar on Recent Trends in BroadbandWirelessSensor Networks
Date of the Event	11.10.2021
Number of Participants	36
Venue	ECE CLASSROOM in JKKMCT
Name of Chief Guest/Speakers	Mr.M.Gowtham Kumar, CEO/Universal Power Supply Bhavani.

- Power is an important part of the energy industry, relating to national economy and people's livelihood, and it is of great significance to ensure the securityand stability in operation of power transmission and distribution system.
- Based on Wireless Sensor Network technology (WSN) and combined with the monitoring and operating requirements of power transmission and distribution

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system, this paper puts forward an application system for monitoring, inspection, security, and interactive service of layered power transmission and distribution system.

- **Wireless Sensor Network (WSN)** is an infrastructure-less wireless network that is deployed in a large number of wireless sensorsin an ad-hoc manner that is used to monitor the system, physical or environmental conditions. Sensor nodes are used in WSN with the onboard processor that manages and monitors the environment in a particular area. They are connected to the Base Station which acts as a processing unit in the WSN System. Base Station in a WSN System is connected through the Internet to share data.
- Mr.M.GowthamKumar - CEO, Currently works Universal Power Supply, Bhavani. Having Experience in Wireless Sensor Networks. He has well knowledge in Networking.

PHOTO GALLERY

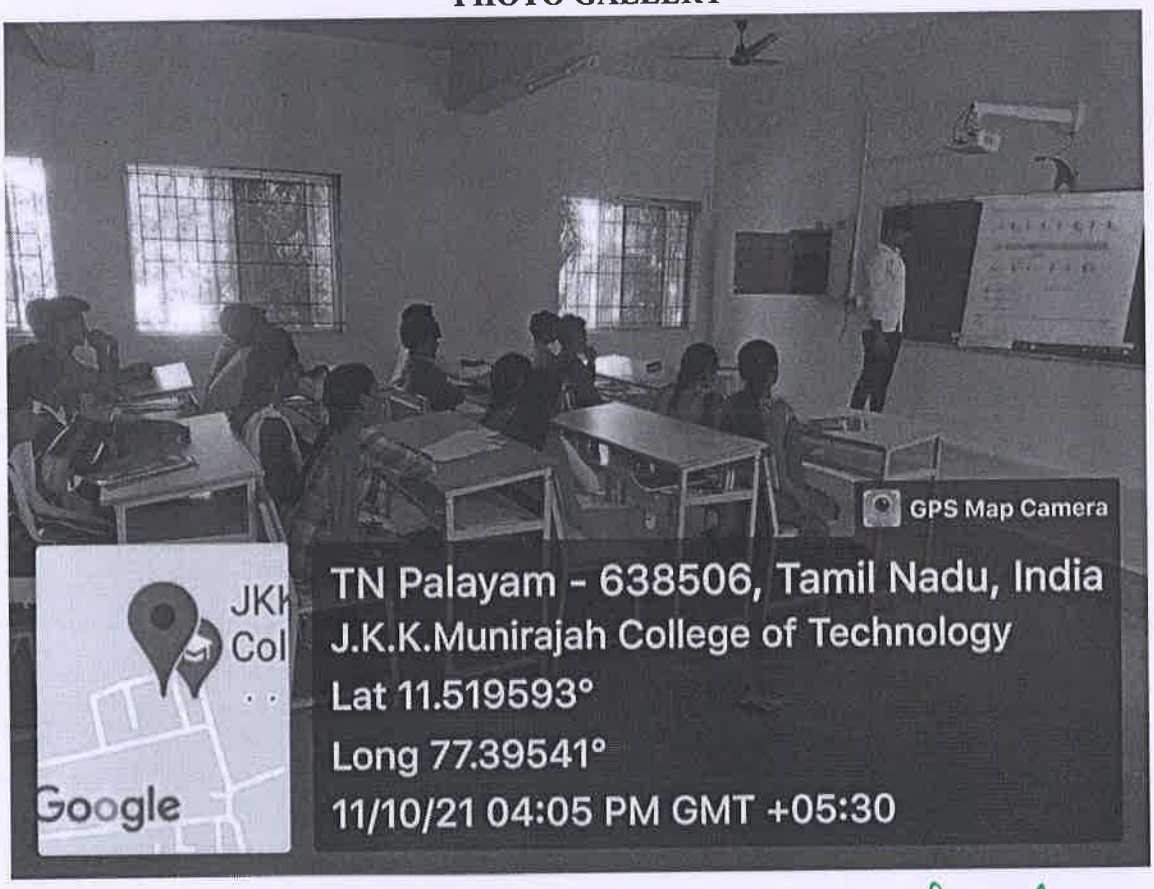

PHOTO OF NATIONAL LEVEL SEMINAR ON RECENT TRENDS IN BROADBAND WIRELESS SENSOR NETWORKS

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DEPARTMENT OF CIVIL ENGINEERING

ONE DAY SEMINAR ON BUILDING ANALYSIS AND PLANNING

Event Organized By	CIVIL DEPARTMENT OF JKKMCT
Name of the Event	ONE DAY SEMINAR ON BUILDING ANALYSIS AND PLANNING
Date of the Event	03-08-2021
Number of Participants	11
Venue	JKKMCT SEMINAR HALL
Name of Chief Guest/Speakers	ER.G.NITHYAPRAKASH, AGN CONSTRUCTIONS, GOBI,ERODE

- Structural engineering deals with the analysis and design of structures. It helps engineers to understand the behavior of a structure when subjected to varied loads and design an efficient structure accordingly.
- The design of tall buildings essentially involves conceptual design, approximate analysis, preliminary design and optimization to safely carry different loads acting on the structure.
- The structural design for a skyscraper must ensure that the building is able to stand up safely, able to function without excessive deflections or movements which may cause fatigue of structural elements, cracking or failure of fixtures, fittings or partitions, or discomfort for occupants.
- As part of this training program, you will also learn about Construction Project Management (CPM) which exposes you to the concepts & methodologies behind scheduling, planning, monitoring, controlling a construction project. Apart from knowing the theoretical concepts, you will also learn to manage a construction project by working on an industrial grade software. In short, with this training program you will be able to design a tall structure and understand

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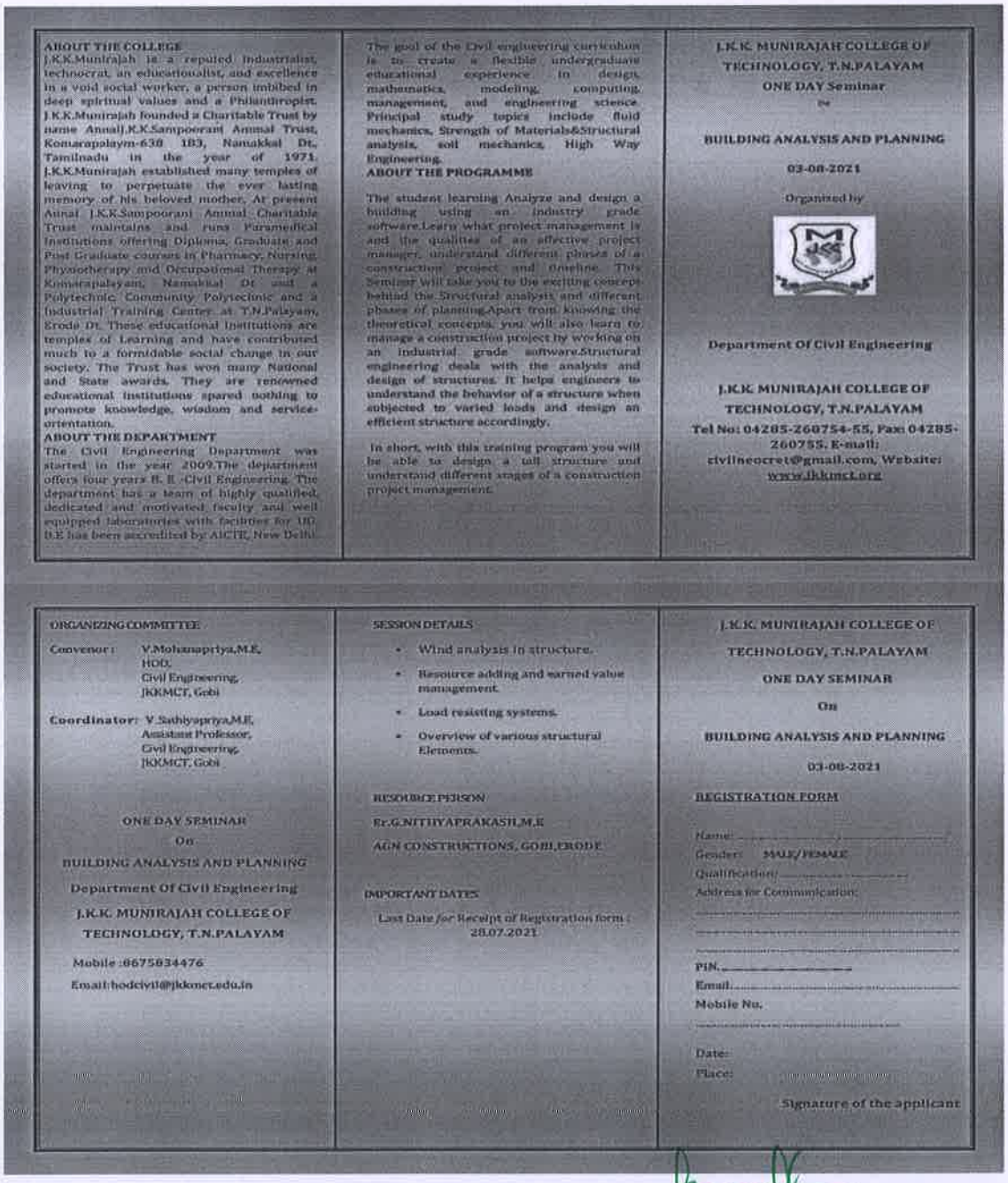
GOBI (Tk), ERODE (Dt).

different stages of a construction project management. Analyze and design a building using industry grade software.

- Understand the effect of wind load on high rise building.Learn what project management is and the qualities of an effective project manager,Understand different phases of a construction project,Learn how to manage resources within the given budget and timeline.
- This seminar will take you to the exciting concept behind the Structural analysis



ABOUT THE COLLEGE

J.K.K.Munirajah is a reputed industrialist, technocrat, an educationalist, and excellence in a void social worker, a person imbibed in deep spiritual values and a Philanthropist. J.K.K.Munirajah founded a Charitable Trust by name Annai J.K.K.Sampoorani Ammal Trust, Komarapalayam-638 183, Namakkal Dt, Tamilnadu in the year of 1971. J.K.K.Munirajah established many temples of leaving to perpetuate the ever lasting memory of his beloved mother. At present Annai J.K.K.Sampoorani Ammal Charitable Trust maintains and runs Paramedical Institutions offering Diploma, Graduate and Post Graduate courses in Pharmacy, Nursing, Physiotherapy and Occupational Therapy at Komarapalayam, Namakkal Dt and a Polytechnic, Community Polytechnic and a Industrial Training Center at T.N.Palayam, Erode Dt. These educational institutions are temples of Learning and have contributed much to a formidable social change in our society. The Trust has won many National and State awards. They are renowned educational institutions spared nothing to promote knowledge, wisdom and service-orientation.

ABOUT THE DEPARTMENT

The Civil Engineering Department was started in the year 2009.The department offers four years B. E -Civil Engineering. The department has a team of highly qualified, dedicated and motivated faculty and well equipped laboratories with facilities for UG. B.E has been accredited by AICTE, New Delhi.

The goal of the Civil engineering curriculum is to create a flexible undergraduate educational experience in design, mathematics, modeling, computing, management, and engineering science. Principal study topics include fluid mechanics, Strength of Materials&Structural analysis, soil mechanics, High Way Engineering.

ABOUT THE PROGRAMME

The student learning Analyze and design a building using an industry grade software.Learn what project management is and the qualities of an effective project manager, understand different phases of a construction project and timeline. This Seminar will take you to the exciting concept behind the Structural analysis and different phases of planning.Apart from knowing the theoretical concepts, you will also learn to manage a construction project by working on an industrial grade software.Structural engineering deals with the analysis and design of structures. It helps engineers to understand the behavior of a structure when subjected to varied loads and design an efficient structure accordingly.

In short, with this training program you will be able to design a tall structure and understand different stages of a construction project management.

J.K.K. MUNIRAJAH COLLEGE OF TECHNOLOGY, T.N.PALAYAM
ONE DAY Seminar
On
BUILDING ANALYSIS AND PLANNING
03-08-2021
Organised by

Department Of Civil Engineering

J.K.K. MUNIRAJAH COLLEGE OF TECHNOLOGY, T.N.PALAYAM
Tel No: 04285-260754-55, Fax: 04285-260755, E-mail: civilneocret@gmail.com, Website: www.jkkmct.org

ORGANIZING COMMITTEE

Convenor: V.Mohanapriya,M.E,
HOD,
Civil Engineering,
JKKMCT, Gobi

Coordinator: V.Sathiyapriya,M.E,
Assistant Professor,
Civil Engineering,
JKKMCT, Gobi

ONE DAY SEMINAR
On
BUILDING ANALYSIS AND PLANNING
Department Of Civil Engineering
J.K.K. MUNIRAJAH COLLEGE OF TECHNOLOGY, T.N.PALAYAM
Mobile :8675834476
Email:hodcivil@jkkmct.edu.in

SESSION DETAILS

- Wind analysis in structure.
- Resource adding and earned value management.
- Load resisting systems.
- Overview of various structural Elements.

RESOURCE PERSON

Er.G.NITHYAPRAKASH,M.E
AGN CONSTRUCTIONS, GOBI,ERODE

IMPORTANT DATES

Last Date for Receipt of Registration form : 28.07.2021

J.K.K. MUNIRAJAH COLLEGE OF TECHNOLOGY, T.N.PALAYAM
ONE DAY SEMINAR
On
BUILDING ANALYSIS AND PLANNING
03-08-2021

REGISTRATION FORM

Name: .....
Gender: MALE/FEMALE
Qualification: .....
Address for Communication:
.....
.....
.....
PIN. .....
Email: .....
Mobile No.
.....
Date:
Place:

Signature of the applicant

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BROCHURE OF THE EVENT

PHOTO GALLERY

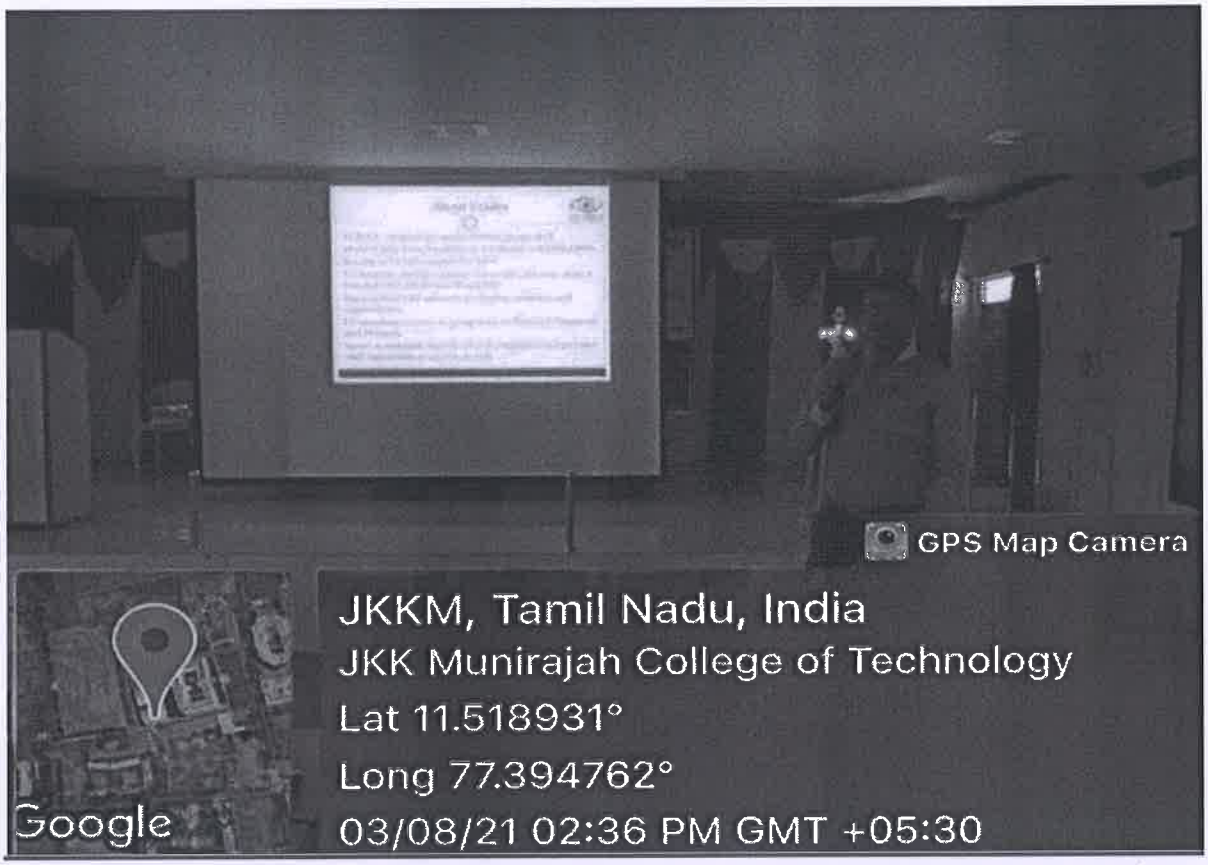

PHOTO OF ONE DAY SEMINAR ON BUILDING ANALYSIS AND PLANNING

COMPUTER SCIENCE & ENGINEERING AND INFORMATION TECHNOLOGY

SEMINAR ON EFFECTS OF ENTREPRENEURSHIP DEVELOPMENTON EMPLOYMENT GENERATION

Event Organized By	CSE & IT DEPARTMENT OF JKKMCT
Name of the Event	Seminar on Effects of Entrepreneurship development on Employment Generation
Date of the Event	15.09.2022

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Number of Participants	126
Venue	JKKMCT Seminar Hall
Name of Chief Guest/Speakers	Mr.R.Vignesh

- Effects of Entrepreneurship Development on Employment Generation organized by Department of Computer Science and Engineering and Information Technology, Jkk Munirajah College of Technology on 15.09.2021 through Offline mode.
- The aim of the webinar is to create knowledge among the participants about Entrepreneurship Development .The total no of participants is 69 Students.Dr. N.Sathyabalaji, Professor and Head, Department of Computer Science and Engineering, Delivered the welcome address and he extended his warm welcome to the resource person and Participants.
- The presidential address was given by Dr.K.Sridharan, Principal, JKK Munirajah College of Technology. Further, he highlighted the importance of Entrepreneurship Development on Employment Generation. Mr.R.Vignesh, Forge Innovation & Ventures, Coimbatore, played Chief Guest role and he delivered the importance Entrepreneurship Development on Employment Generation. The webinar was very useful and fashionable by participants from the students.

PHOTO GALLERY

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COLLEGE OF TECHNOLOGY

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BROCHURE OF SEMINAR ON EFFECTS OF ENTREPRENEURSHIP DEVELOPMENT ON EMPLOYMENT GENERATION

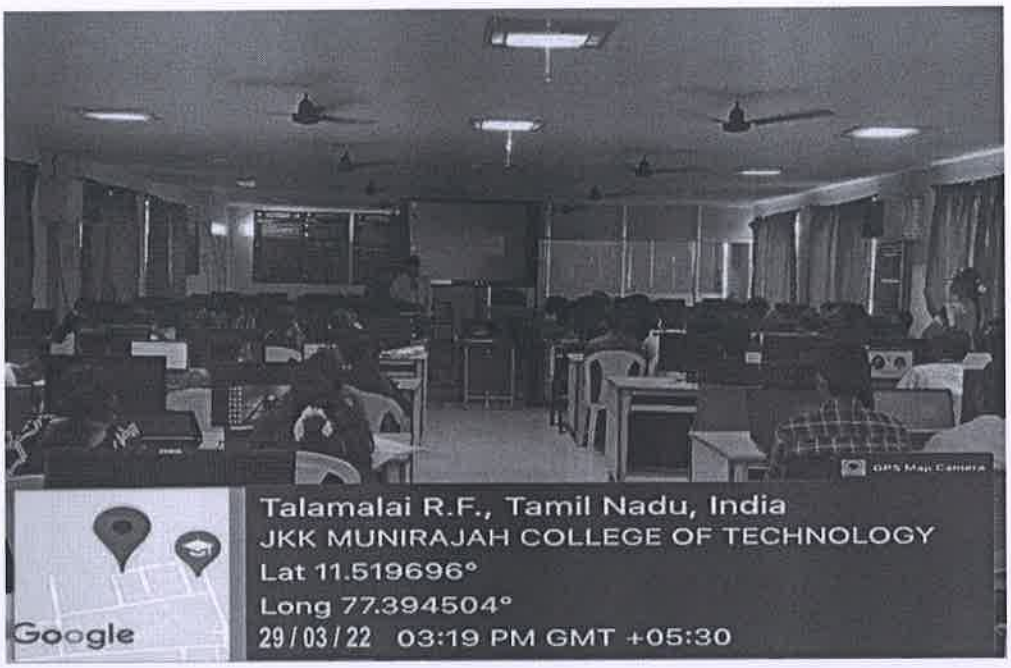

PHOTO OF SEMINAR ON EFFECTS OF ENTREPRENEURSHIP DEVELOPMENT ON EMPLOYMENT GENERATION

COMPUTER SCIENCE & ENGINEERING

WEBINAR ON BASICS OF INTELLECTUAL PROPERTY RIGHTS (IPR)

Event Organized By	CSE DEPARTMENT OF JKKMCT
Name of the Event	Webinar on Basics of Intellectual Property Rights (IPR)
Date of the Event	29.03.2022
Number of Participants	69
Name of Chief Guest/Speakers	Mr.P.Hariharan

- Webinar on basics of Intellectual property Rights (IPR) organized by Department of Computer Science and Engineering and Information Technology, Jkk Munirajah College of Technology on 29.03.2022 through Offline mode.

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OF TECHNOLOGY
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GOBI (Tk), ERODE (Dt)

- The aim of the webinar is to create knowledge among the participants about Intellectual Property Rights.

- The total no of participants is 69 Students. **Dr. N.Sathyabalaji**, Professor and Head, Department of Computer Science and Engineering, Delivered the welcome address and he extended his warm welcome to the resource person and Participants.
- The presidential address was given by **Dr.K.Sridharan**, Principal, JKK Munirajah College of Technology. Further, he highlighted the importance of Intellectual property Rights (IPR). **Mr.P.Hariharan** , Fi-Dei Intellect IPR Solutions, Coimbatore, played Chief Guest role and he delivered the importance of Intellectual property Rights (IPR).Heclearly explained the scope of Intellectual property Rights (IPR). The webinar was very useful and fashionable by participants from the students. The program was successfully completed with vote of thanks by **Mr.E.Ananth,** Assistant professor, Department of Computer Science and Engineering.

PHOTO GALLERY

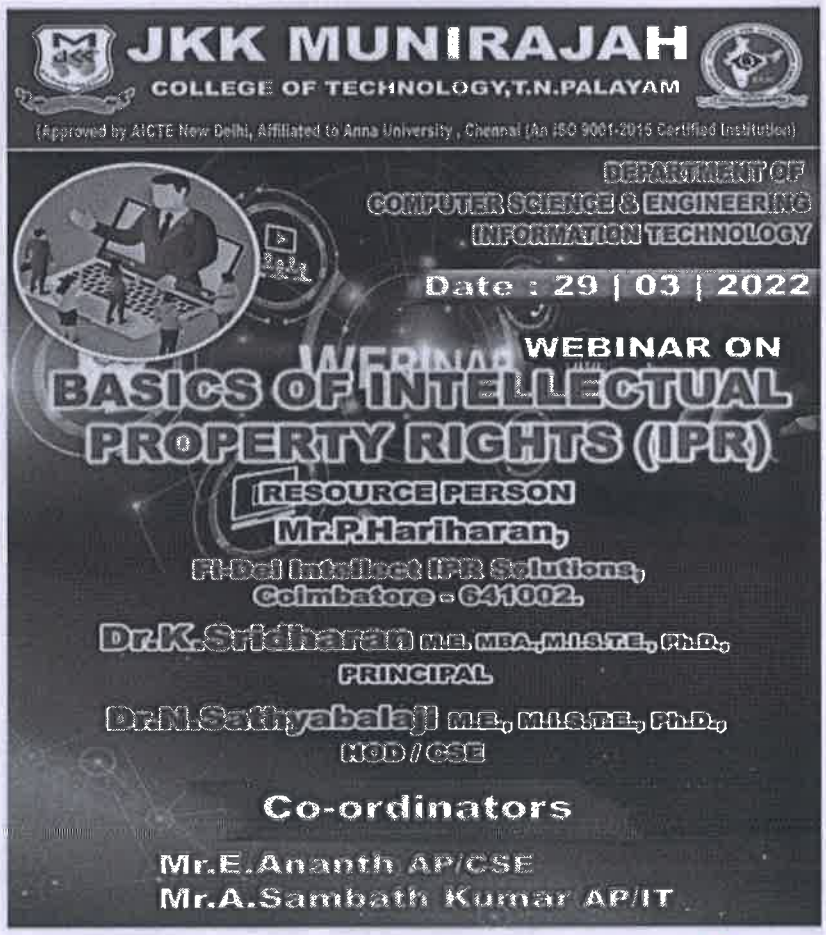

PHOTO OF WEBINAR ON BASICS OF INTELLECTUAL PROPERTY RIGHTS (IPR)

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2.4 WORKSHOP

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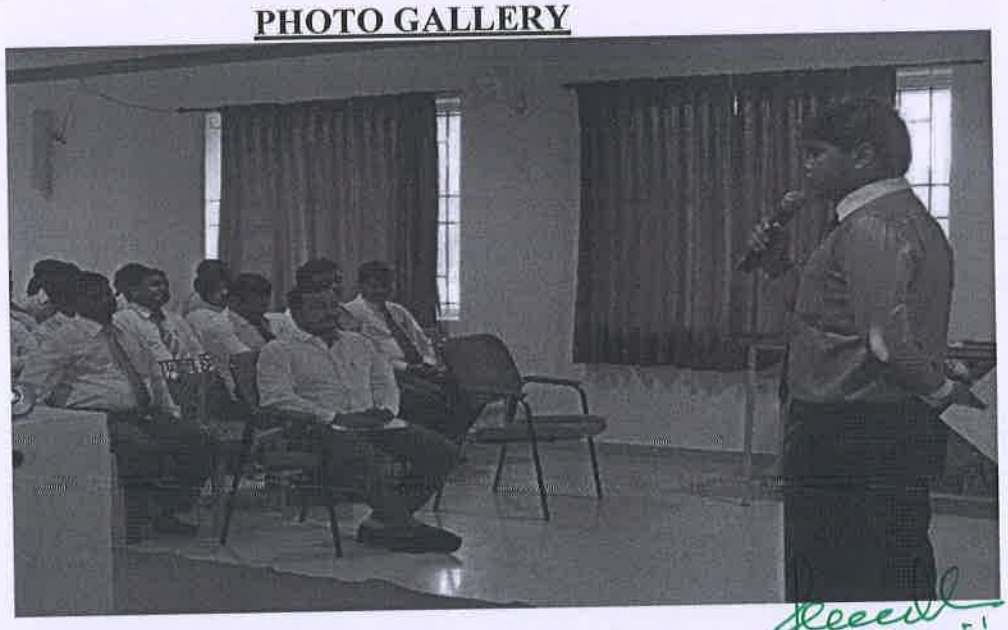
WORKSHOP ON SENSOR GUIDED ROBOTICS

Event Organized By	AUTOMOBILE DEPARTMENT OF JKKMCT
Name of the Event	WORKSHOP ON SENSOR GUIDED ROBOTICS
Date of the Event	01.10.2021 and 02.10.2021
Number of Participants	38
Venue	MECHANICAL SMART CLASS
Name of Chief Guest/Speakers	Dr. M.SARAVANAN M.E., Ph.D.Head and Associate Professor, Mechatronics Engineering, NBKR Institute of Science and Technology

- In this course, students developed 3 different basic autonomous robots which are guided using sensors.
- The first robot has a line follower which is programmed to follow a line.
- This robot detects the path using infra-red sensors which work on the principle of reflection of light.
- Using the same sensors, students also developed robots that can avoid or follow obstaclesor light.

PHOTO GALLERY



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GOBI (Tk) ERODE (Dt).

J.K.K.MUNIRAJAH
COLLEGE OF TECHNOLOGY

T.N.PALAYAM (PO), GOBI (TK), ERODE (DT) – 638 506

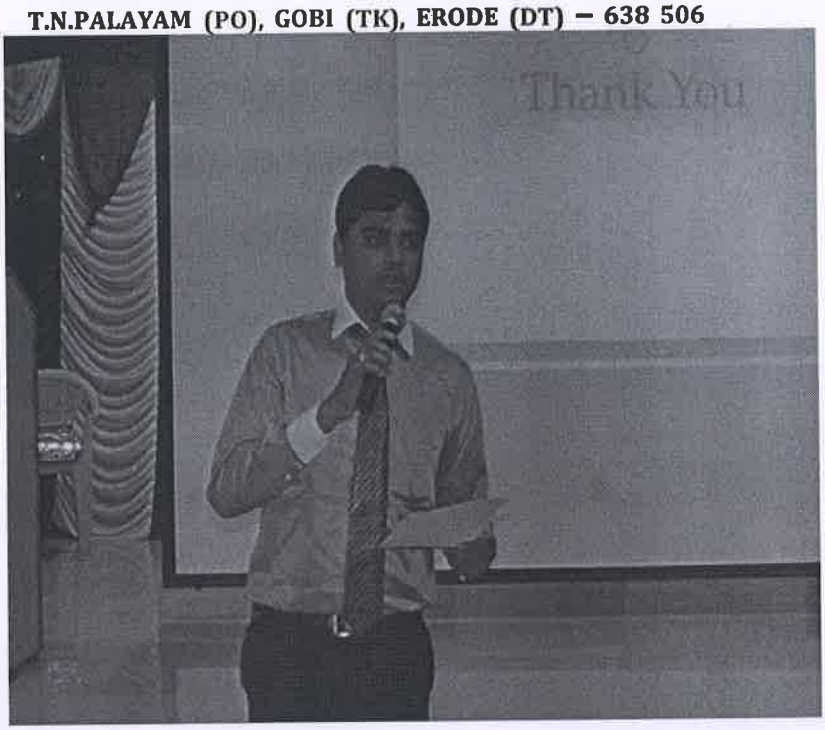

PHOTO OF WORKSHOP ON SENSOR GUIDED ROBOTICS

DEPARTMENT OF CIVIL ENGINEERING

Event Organized By	CIVIL DEPARTMENT OF JKKMCT
Name of the Event	ONE DAY WORKSHOP ON FOUNDATION ENGINEERING AND ANALYSIS
Date of the Event	21.09.2021
Number of Participants	11
Venue	CIVIL SMART CLASS
Name of Chief Guest/Speakers	Dr. M.MATHIAZHAGAN AP/CIVIL, Manonmaniam Sundaranar University, Tirunelveli

- All engineered construction resting on the earth must be supported by some kind of interfacing element, called a foundation. It is evident that foundation is the very important part of a civil engineering project.
- The objective of the Foundation Analysis workshop is to teach students the appropriate approach towards soil foundation analysis used in construction projects. The study of thickness of sediments near

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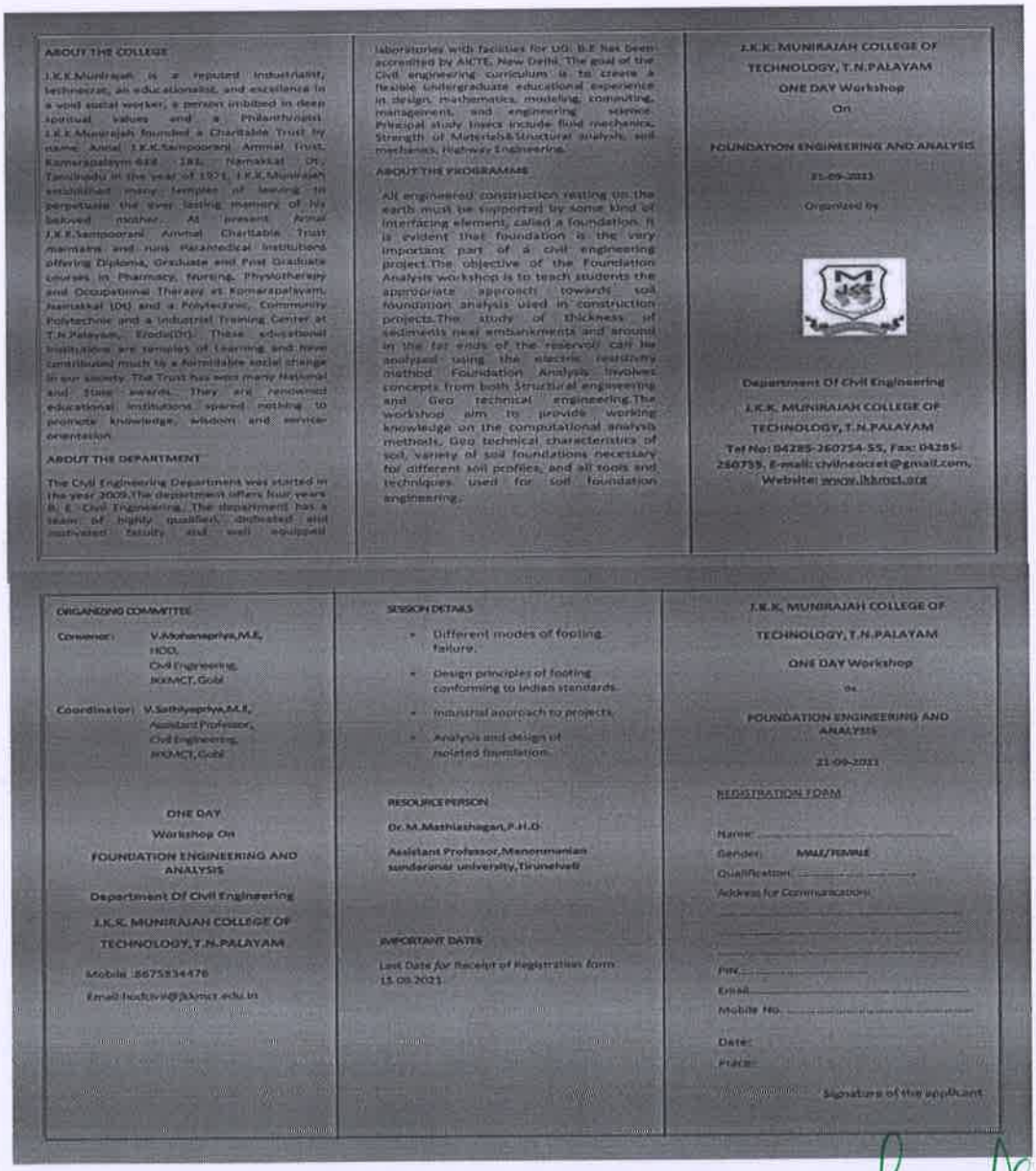
embankments and around in the far ends of the reservoir can be analysed using the electric resistivity method. Foundation Analysis involves concepts from both Structural engineering and Geo technical engineering.

- The workshop aims to provide working knowledge on the computational analysis methods,
- Geo technical characteristics of soil, variety of soil foundations necessary for different soil profiles, and all tools and techniques used for soil foundation engineering.
- Learning about various kinds of foundations, Interpreting Soil investigation data for design of soil foundation and implementation of knowledge

gained to develop good projects.



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ABOUT THE PROGRAMME

All engineered construction resting on the earth must be supported by some kind of interfacing element, called a foundation. It is evident that foundation is the very important part of a civil engineering project.The objective of the Foundation Analysis workshop is to teach students the appropriate approach towards soil foundation analysis used in construction projects.The study of thickness of sediments near embankments and around in the far ends of the reservoir can be analysed using the electric resistivity method. Foundation Analysis involves concepts from both Structural engineering and Geo technical engineering.The workshop aim to provide working knowledge on the computational analysis methods, Geo technical characteristics of soil, variety of soil foundations necessary for different soil profiles, and all tools and techniques used for soil foundation engineering.

J.K.K. MUNIRAJAH COLLEGE OF TECHNOLOGY, T.N.PALAYAM
ONE DAY Workshop
On
FOUNDATION ENGINEERING AND ANALYSIS
21-09-2021
Organized by

Department Of Civil Engineering
J.K.K. MUNIRAJAH COLLEGE OF TECHNOLOGY, T.N.PALAYAM
Tel No: 04285-260754-55, Fax: 04285-260759, E-mail: civilnecret@gmail.com, Website: www.jkkmct.org

ORGANIZING COMMITTEE

Convenor: V.Mohanapriya,M.E, HOD, Civil Engineering, JKKMCT, Gobi

Coordinator: V.Sathiyapriya,M.E, Assistant Professor, Civil Engineering, JKKMCT, Gobi

ONE DAY
Workshop On
FOUNDATION ENGINEERING AND ANALYSIS
Department Of Civil Engineering
J.K.K. MUNIRAJAH COLLEGE OF TECHNOLOGY, T.N.PALAYAM
Mobile :8675834476
Email-hodcivil@jkkmct.edu.in

SESSION DETAILS

- Different modes of footing failure.
- Design principles of footing conforming to Indian standards
- Industrial approach to projects
- Analysis and design of isolated foundation

RESOURCE PERSON

Dr.M.Mathiazhagan,P.H.D
Assistant Professor,Manonmaniam sundaranar university,Tirunelveli

IMPORTANT DATES

Last Date for Receipt of Registration form 15.09.2021

J.K.K. MUNIRAJAH COLLEGE OF TECHNOLOGY, T.N.PALAYAM
ONE DAY Workshop
on
FOUNDATION ENGINEERING AND ANALYSIS
21-09-2021

REGISTRATION FORM

Name:
Gender: MALE/FEMALE
Qualification:
Address for Communication:
PIN:
Email:
Mobile No.
Date:
Place:
Signature of the applicant

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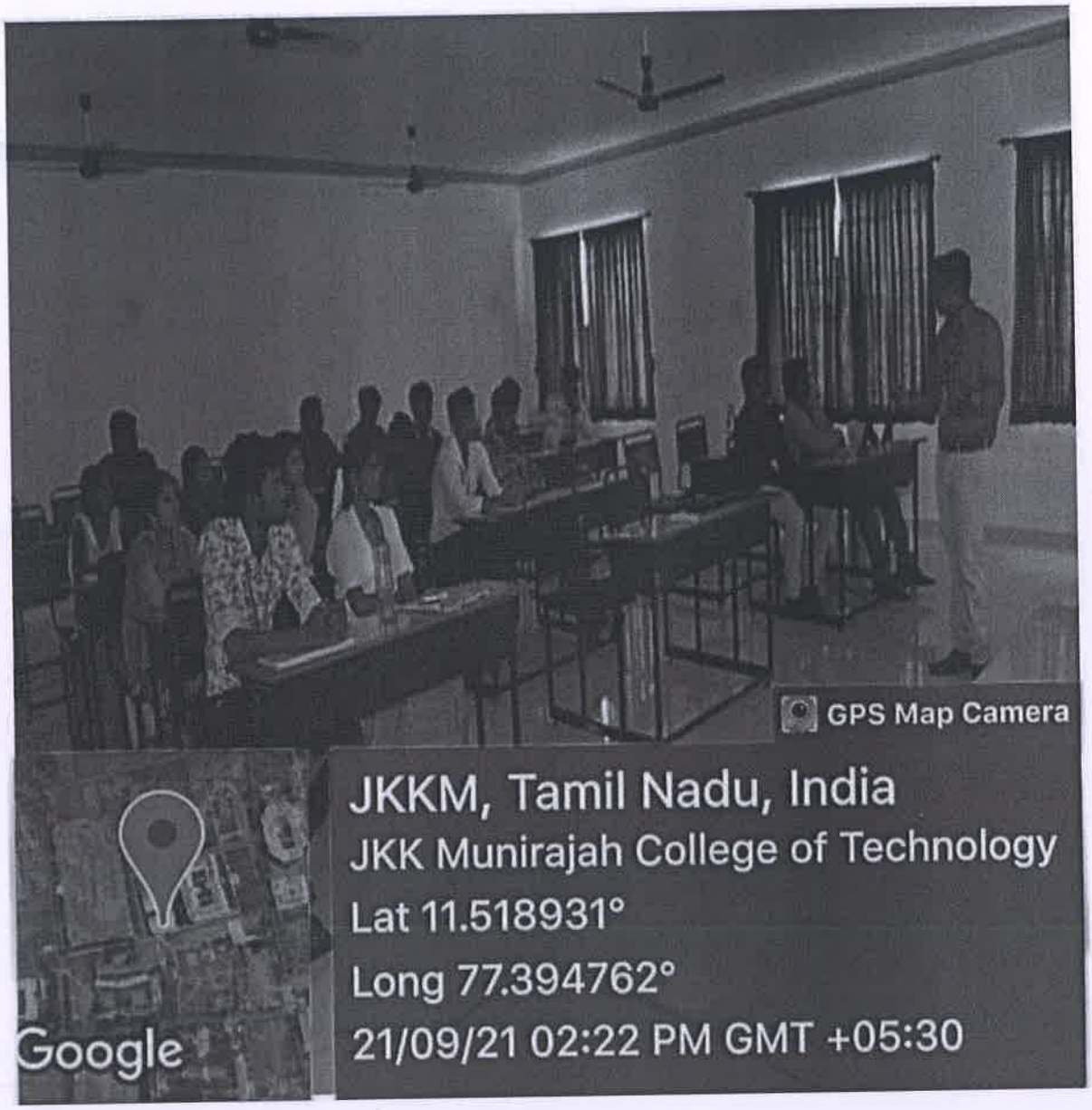

PHOTO OF THE EVENT

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GOBI (Tk), ERODE (Dt).

J.K.K.MUNIRAJAH
COLLEGE OF TECHNOLOGY

T.N.PALAYAM (PO), GOBI (TK), ERODE (DT) – 638 506

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

WORKSHOP ON ARM PLATFORM FOR IOT IMPLEMENTATION

Event Organized By	ECE DEPARTMENT OF JKKMCT
Name of the Event	Workshop on ARM Platform for IoT Implementation
Date of the Event	08.04.2022
Number of Participants	38
Venue	ECE CLASSROOM in JKKMCT
Name of Chief Guest/Speakers	Mr.S.Nateshkannan, Manager, KARIOT Solutions Private LtdChennai.

- Recent IoT services are being used in various fields such as smart homes, smart factories, smart cars and industrial systems. These various IoT services are implemented through hyper-connected IoT devices, and accordingly, security requirements of these devices are being highlighted.
- In order to satisfy the security requirements of IoT devices, various studies have been conducted such as HSM, Security SoC, and Trust Zone. In particular, ARM proposed Platform Security Architecture (PSA), which is a security architecture that provide execution isolation to safely manage and protect the computing resources of low- end IoT devices. PSA can ensure confidentiality and integrity of IoT devices based on its structural features, but conversely, it has the problem of increasing development difficulty in using the security functions of PSA.
- To solve this problem, this paper analyzes the security requirements of an IoT platform and proposes secure platform based on PSA. To evaluate the proposed secure platform, a PoC implementation is provided based on hardware prototype consisting of FPGA. Our experiments with the PoC implementation verify that the proposed secure platform offers not only high security but also convenience of application development for IoT devices.
- **Speaker details:** Mr.S.Nateshkannan - Manager, Currently works KARIOT Solutions Private Ltd, Chennai. Having Experience in Embedded Firmware Development and IoT. He has well knowledge in perform programming using PIC programming/debugging.

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GOBI (Tk), ERODE (Dt).

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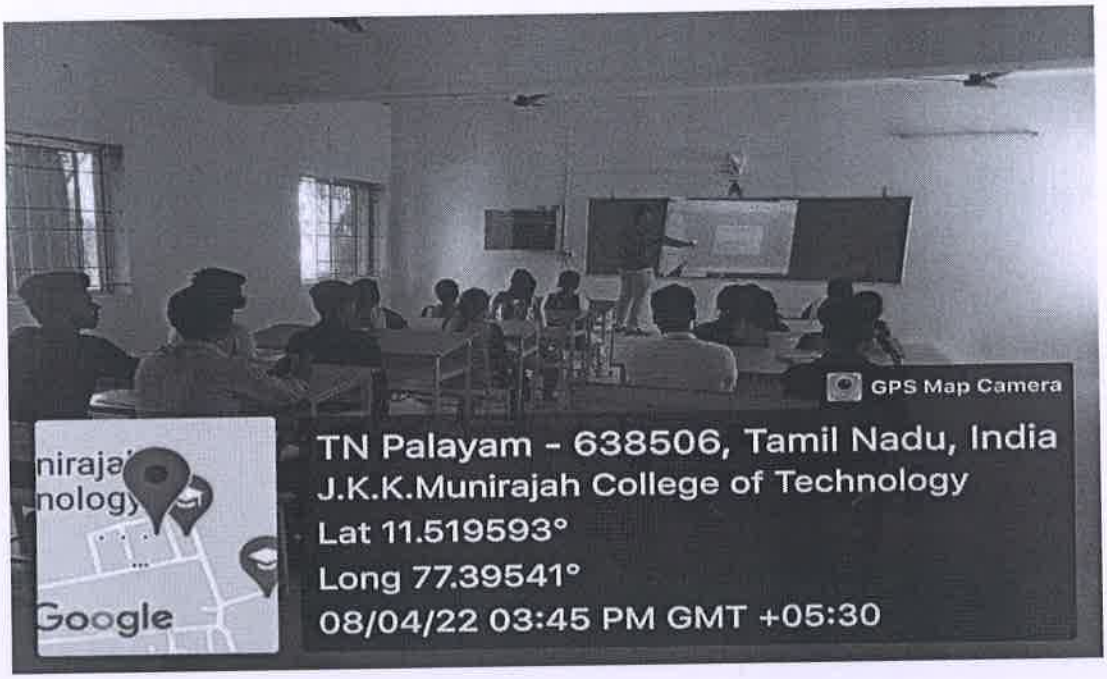

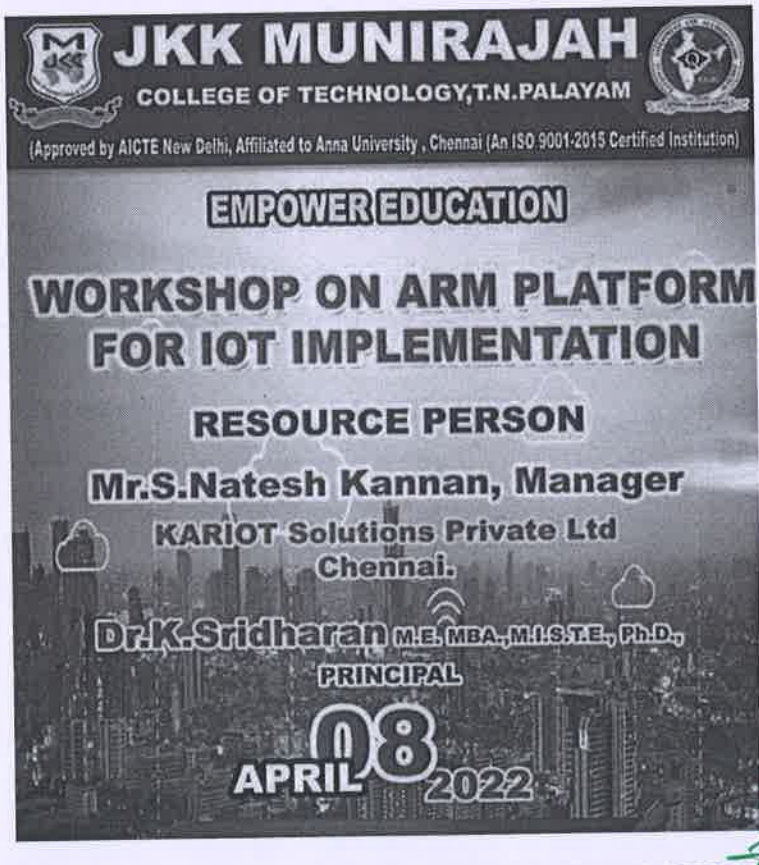

PHOTO OF NATIONAL LEVEL WORKSHOP ON ARM PLATFORM FOR IOT

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3. PROBLEM SOLVING TECHNIQUES

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3.1 FINAL YEAR PROJECT

3. PROBLEM SOLVING TECHNIQUES

FINAL YEAR PROJECT

DEPARTMENT OF CIVIL ENGINEERING

2.3.1 Problem solving Techniques
Branch & Semester :Civil Engineering & VIII semester
PROJECT WORK Batch :2018-2022

S.No	Title of the Project	Project Members	Reg.No.	Guide's Name	Dept	Relevance				
						Research	Environment	Caste Study	Ethics	Others
1	EXPERIMENTAL INVESTIGATION ON ON PARTIAL REPLACEMENT OF CEMENT WITH RED MUD	J.Jayasurya M.Thamilselvi	731218103002 731218103302	Mrs.P.Reena	CIVIL	✓	✓	✓		
2	AN EXPERIMENTAL INVESTIGATION ON ON PARTIAL REPLACEMENT OF CEMENT BY CHALK PIECE POWDER	M.Ganga M.Kavya S.Munieswaran	731218103001 731218103003 731218103005	Ms.V.Sathya priya	CIVIL	✓	✓	✓		

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3	AN EXPERIMENTAL INVESTIGATION ON ON PARTIAL REPLACEMENT OF COARSE AGGREGATE WITH COCONUT SHELL	V.Rajkumar Tana Lalik S.Poornima	731218103006 731218103309 731218103301	Mr.G.Ruthish kumar		✓	✓	✓		

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J.K.K.MUNIRAJAH
COLLEGE OF TECHNOLOGY
T.N.PALAYAM (PO), GOBI (TK), ERODE (DT) – 638 506

BONAFIDE CERTIFICATE

Certified that this project report is the titled "**EXPRIMENTAL INVESTIGATION ON PARTIAL REPLACEMENT OF CEMENT WITH REDMUD**" is approved record of work done by **JAYASURYA.J (731218103002) & THAMILSELVI.M (731218103302)** impartial fulfillment for the award of **Bachelor of Civil Engineering** of Anna University, Chennai Technology during the year 2022.

23/06/22

SIGNATURE

Mrs.P. REENA., M.E.

SUPERVISOR

Department of Civil Engineering,

J K K Munirajah College of Technology

T.N. Palayam – 638506

23/6/22

SIGNATURE

Mrs.V. MOHANAPRIYA., M.E.,

HEAD OF THE DEPARTMENT

Department of Civil Engineering,

J K K Munirajah College of Technology

T.N. Palayam – 638506

Submitted for the project viva-voice examination held on 23-06-2022

23/6/22

INTERNAL EXAMINER

EXTERNAL EXAMINER

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GOBI (Tk), ERODE (Dt).

J.K.K.MUNIRAJAH
COLLEGE OF TECHNOLOGY

T.N.PALAYAM (PO), GOBI (TK), ERODE (DT) – 638 506

BONAFIDE CERTIFICATE

This is to certify that the project titled, **"AN EXPERIMENTAL, INVESTIGATION ON PARTIAL REPLACEMENT OF CEMENT BY CHALK PIECE POWDER"** is approved record of work done by **GANGA.M (731218103001), KAVYA.M (7312181030003) and MUNIESWARAN.S (731218103005)** in partial fulfilment for the award of **Bachelor of Civil Engineering** of Anna University of technology during the year 2021-2022.

V. Bhi	23/6/22
SIGNATURE	**SIGNATURE**
Ms. V.SATHIYAPRIYA., M.E.	**Mrs. MOHANAPRIYA., M.E.,**
SUPERVISOR	**HEAD OF THE DEPARTMENT**
Assistant professor	Assistant professor
Department of Civil Engineering	Department of Civil Engineering
JKK Munirajah College of Technology	JKK Munirajah College of Technology
T N Palayam – 638 506	T N Palayam – 638 506

Submitted for the end semester viva-voce examination held on - 23 - 06 - 2022

23/6/22	M.M
Internal Examiner	**External Examiner**

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T.N.PALAYAM (PO), GOBI (TK), ERODE (DT) – 638 506

BONAFIDE CERTIFICATE

This is to certify that the project titled, "**AN EXPERIMENTAL INVESTIGATION ON PARTIAL REPLACEMENT OF COARSE AGGREGATE WITH COCONUT SHELL**" is approved record of work done by **RAJKUMAR. V (731218103006), TANA LALIK (731218103009) and POORNIMA.S (731218103301)** in partial fulfilment for the award of **Bachelor of Civil Engineering** of Anna University of technology during the year 2021-2022.

I. Benazir 22/6/22

SIGNATURE
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23/6/22

Internal Examiner

External Examiner

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

2.3.1 Problem solving Techniques

Branch & Semester :Civil Engineering & VIII semester

PROJECT WORK Batch :2018-2022

S.No	Title of the Project	Project Members	Reg.No.	Guide's Name	Dept	Relevance				
						Research	Environment	Caste Study	Ethic	
1	IOT based paralysis patient health care monitoring system	Jai Sri Adithya.T Priyadharsini.A	731218106005 731218106015	N.Gomathi	ECE	✓	✓	✓	✓	
2	Solar power based smart crop protection system fromwild animals	Deepak. M Priya.R	731218106002 731218106013	R.Kokila	ECE		✓ ✓	✓ ✓	✓ ✓	
3	Flood disaster indicater ofdam water level monitoring system	Sathiya. A Manivel. M	731218106018 731218106301	U.Sasikala	ECE		✓	✓	✓	
4	Movement based staircase andveranda lighting	Baby Shalini.G Dharani.M	731218106001 731218106003	S.Abinaya	ECE		✓	✓	✓	

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5	Smart shopping trolley for automatic billing system	Jeevitha.P Periyasamy. TPriya.V	731218106006 731218106012 731218106014	R.Kokila	ECE		✓	✓	✓	
6	GSM basedLED notice board	Keerthana.T Ramachandhiran. G	731218106009 731218106016	S.Abinaya	ECE		✓	✓	✓	

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ANNA UNIVERSITY: CHENNAI 600 025

BONAFIDE CERTIFICATE

Certified that this project report **"IOT BASED PARALYSIS PATIENT HEALTH CARE MONITORING SYSTEM"** is the bonafide work of

JAI SRI ADITHYA.T (731218106005)

PRIYADHARSINI.A (731218106015)

Who carried out the project work under my supervision

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Submitted for the project Viva-Voce examination held on 22.06.22

INTERNAL EXAMINER

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ANNA UNIVERSITY: CHENNAI 600 025

BONAFIDE CERTIFICATE

Certified that this project report **"SOLAR POWER BASED SMART CROP PROTECTION SYSTEM FROM WILD ANIMALS"** is the bonafide work of

DEEPAK.M **(731218106002)**

PRIYA.R **(731218106013)**

Who carried out the project work under my supervision

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Submitted for the project Viva-Voce examination held on 22.05.2022

INTERNAL EXAMINER

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BONAFIDE CERTIFICATE

Certified that this project report **"FLOOD DISASTER INDICATER OF DAM WATER LEVEL MONITORING SYSTEM"** is the bonafide work of

SANTHIYA.A **(731218106018)**

MANIVEL.M **(731218106301)**

Who carried out the project work under my supervision

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INTERNAL EXAMINER

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ANNA UNIVERSITY : CHENNAI-600 025

BONAFIDE CERTIFICATE

Certified that this project report **"MOVEMENT BASED STAIRCASE AND VERANDA LIGHTING"** is the bonafide work of

BABY SHALINI.G (731218106001)

DHARANI.M (731218106003)

Who carried out the project work under my supervision

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Prof.C.MURUGESAN,M.E.,Ph.D.,	Miss.S.ABINAYA,M.E.,
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Submitted for the project Viva-Voce examination held on 22-06-2022

INTERNAL EXAMINER

EXTERNAL EXAMINER

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BONAFIDE CERTIFICATE

Certified that this project report " **SMART SHOPPING TROLLEY FOR AUTOMATION BILLING SYSTEM**" is the bonafide work of

JEEVITHA.P (731218106006)

PERIYASAMY.T (731218106012)

PRIYA.V (731218106014)

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INTERNAL EXAMINER 22/6

EXTERNAL EXAMINER 22/6/22

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ANNA UNIVERSITY: CHENNAI-600 02

BONAFIDE CERTIFICATE

Certified that this project report "GSM BASED LED NOTICE BOARD" is the bonafide work of

KEERTHANA.T (731218106009)

RAMACHANDHIRAN.G (731218106016)

SAKTHISUNDARAM.D (731218106017)

Who carried out the project work under my supervision.

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Submitted for the project Viva-Voce examination held on 22/6/22

22/6/22
INTERNAL EXAMINER

22/6/22
EXTERNAL EXAMINER

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

2.3.1 Problem solving Techniques

Branch & Semester :Computer Science & Engineering & VIII semester

PROJECT WORK Batch :2018-2022

S.No	Title of the Project	Project Members	Reg.No.	Guide's Name	Dept	Relevance				
						Research	Environme	Case	E	Others
1	STOCK MARKET PREDICTION USING MACHINE LEARNING	ANGAMMAL.S SINDHU.S	731218104002 731218104020	Mrs.P.SASIREKA	CSE	✓		✓		
2	COVID 19 DETECTION AND CLASSIFICATION USING CT SCAN IMAGE IN DEEP LEARNING	BOOPATHI.S IYYAPAN.L KAVIYARASAN.M	731218104004 731218104008 731218104301	Dr.N.SATHYAB ALAJI	CSE	✓	✓	✓		
3	REAL TIME FACE DETECTION EMOTION RECOGNITION USING DEEP LEARNING	GEETHA.S JOTHIGA.S UMA.D	731218104006 731216104011 731218104025	Mrs.M.C.SAVITH RI	CSE	✓	✓	✓		
4	FABRIC FAULT DETECTION USING DIGITAL IMAGE PROCESSING	JEEVABHARATHI.M SARANYA.M THAMARAISELVI.R	731218104010 731218104018 731218104024	Mrs.P.SASIREKA	CSE	✓		✓		
5	IOT BASED EMISSION MONITORING SYSTEM IN VEHICLE USING NODEMCU	MANIKANDAN.T RATHISH.D	731218104014 731218104017	Mr.E.ANANTH	CSE	✓				

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6	DEEP LEARNING APPROACH FOR COUNTING THE PRESENCE OF THE PROPLE IN REAL TIME USING OPEN CV	NIRANJANA.M KIRUTHIKA.S	731218104015 731218104302	Mrs.P.SASIREKA	CSE	✓					
7	BREAST CANCER USING DEEP LEARNING TECHNIQUES	NISHA.S SINDHUJA.V	731218104016 731218104021	Mrs.M.C.SAVITHRI	CSE	✓					
8	A SMART ATM SECURITY SYSTEM USING RASPBERRY PI	SIBINDASS.S VINOTH.L	731218104019 731218104028	Dr.N.SATHYABALAJI	CSE	✓					
9	HUMAN ACTION RECOGNITION AND ANNOTATION USING BOOSTED EXEMPLER LEARNING AND ADABOOST	SUBRAMANI.N VIJAYAKUMAR.N	731218104023 731218104026	MR.E.ANANTH	CSE	✓					

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BONAFIDE CERTIFICATE

Certified that this project report on "STOCK MARKET PREDICTION USING MACHINE LEARNING" is the bonafide work of "S.ANGAMMAL (731218104002), S.SINDHU (731218104020)" who carried out the project work under my supervision.

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Dr.N.SATHYABALAJI M.E.,M.I.S.T.E.Ph.D	Mrs.P.SASIREKA M.E.,
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Submitted for the Viva-Voce examination held on 22.06.2022 - FN

INTERNAL EXAMINER

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Certified that this project report on **"COVID-19 DETECTION AND CLASSIFICATION USING CT SCAN IMAGE IN DEEP LEARNING"** is the bonafide work of **"BOOPATHI S (731218104004), IYYAPPAN L (731218104008), KAVIYARASAN M (731218104301)"** who carried out the project work under my supervision.

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Submitted for the Viva-Voce examination held on 22-06-2022 FN

INTERNAL EXAMINER

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Certified that this project report on **"REAL TIME FACE DETECTION EMOTION RECOGNITION USING DEEP LEARING"** is the bonafide work of **"R.GEETHA (731218104006), S.JOTHIGA (731218104011), D.UMA (731218104025)"** who carried out the project work under my supervision.

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Certified that this project report on "FABRIC FAULT DETECTION USING DIGITAL IMAGE PROCESSING" is the bonafide work of "JEEVABHARATHI.M (731218104010), SARANYA.M (731218104018), THAMARAISELVI.R (731218104024)" who carried out the project work under my supervision.

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BONAFIDE CERTIFICATE

Certified that this project report on **"IOT BASED EMISSION MONITORING SYSTEM IN VEHICLE USING NODEMCU"** is the bonafide work of **"T.MANIKANDAN (731218104014), D.RATHISH (731218104017)"** who carried out the project work under my supervision.

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Submitted for the Viva-Voce examination held on 22-06-2022 | FN

INTERNAL EXAMINER

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BONAFIDE CERTIFICATE

Certified that this project report on "DEEP LEARNING APPROACH FOR COUNTING THE PRESENCE OF THE PEOPLE IN REAL TIME USING OPENCV" is the bonafide work of "M.NIRANJANA (731218104015), S.KIRUTHIKA (731218104302)" who carried out the project work under my supervision.

SIGNATURE

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INTERNAL EXAMINER

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BONAFIDE CERTIFICATE

Certified that this project report on **"BREAST CANCER DETECTION USING DEEPLEARNING TECHNIQUE"** is the bonafide work of **"S.NISHA (731218104016), V.SINDHUJA (731218104021)"** who carried out the project work under my supervision.

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BONAFIDE CERTIFICATE

Certified that this project report on **"A SMART ATM SECURITY SYSTEM USING RASPBERRY PI"** is the bonafide work of **"S.SIBINDASS(731218104019), L.VINODH (731218104028)"** who carried out the project work under my supervision.

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ANNA UNIVERSITY::CHENNAI 600 025

BONAFIDE CERTIFICATE

Certified that this project report on **"HUMAN ACTION RECOGNITION AND ANNOTATION USING BOOSTED EXEMPLER LEARNING & ADABOOST"** is the bonafide work of **"SUBRAMANI N (731218104023), VIJAYAKUMAR S (731218104026)"**, who carried out the project work under my supervision.

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Submitted for the Viva-Voce examination held on 22-6-2022 FN

INTERNAL EXAMINER

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DEPARTMENT OF INFORMATION TECHNOLOGY

2.3.1 Problem solving Techniques

Branch & Semester : Information Technology & VIII semester

PROJECT WORK Batch :2018-2022

S.No	Title of the Project	Project Members	Reg.No.	Guide's Name	Dept	Relevance				
						Research	Environment	Case Study	Ethics	Others
1	MULTIPLE OBJECT DETECTION FOR BLIND PEOPLE USING DEEP LEARNING	CHANDRU.K RAGAVAN.R VASANTHKUMAR.K	731218205001 731218205016 731218205029	Mr.E.ARUNMAHARAJA	IT	✓		✓		
2	ARDUINO BASED SPY ROBOT USING WIRELESS CAMERA	GOBINATH.M RAJAMANICKAM.G SURYA.M	731218105002 731218105017 731218105028	Mr.E.ARUNMAHARAJA	IT	✓	✓	✓		
3	FOREST FIRE PREDICTION USING NODEMCU	JAYAKUMAR.M SIVASHANKAR.G	731218205003 731218205025	Dr.N.SATHYABALAJI	IT	✓	✓	✓		
4	QUALITY TESTING OF RICE GRAINS USING NEURAL NETWORK	JOTHIKA.C MAHESHWARI.B	731218205004 731218205007	Mrs.D.NIVETHINI		✓		✓		

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5	IOT BASED AGRICULTURE MONITORING AND CONTROLLING SYSTEM USING ARDUINO UNO	KARVANNAN.K PRASANTH.K	731218205005 731218205013	Dr.N.SATHYABALAJI	IT	✓					
6	CRYPTO CURRENCY MARKET PREDICTION USING MACHINE LEARNING	MEENA.N MONISHA.S SUMATHI.M	731218205009 731218205011 731218205027	Mrs.R.KAVITHA	IT	✓					
7	MACHINE LEARNING BASED MODEL FOR CROP YIELD PREDICTION	PRABHAKARAN.S PRASANTH.M	731218205012 731218205014	Dr.N.SATHYABALAJI	IT	✓					
8	IOT BASED SMART WASTE MANAGEMENT USING NODEMCU ESP8266	RANJITHA.R SOWNDARYA.A	731218205019 731218205026	Mrs.D.NIVETHINI	IT	✓					
9	SKIN CANCER DETECTION USING DEEP LEARNING	REKA.N SANMUGAPRIYA.R	731218205020 731218205023	Mrs.R.KAVITHA	IT	✓					

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BONAFIDE CERTIFICATE

Certified that this project report on **"MULTIPLE OBJECT DETECTION FOR BLIND PEOPLE USING DEEP LEARNING"** is the confide work Of **"K.CHANDRU (731218205001), R.RAGAVAN (731218205016) and K.VASANTHAKUMAR (73218205029)"** Who carried out the project work under my supervision

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Certified that this project report on **"FOREST FIRE DETECTION USING NODEMCU WITH IOT"** is the bonafide work of **"JAYAKUMAR M (731218205003), SIVASHANKAR G (731218205025)"** who carried out the project work under my supervision.

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Certified that this project report on **"MACHINE LEARNING BASED MODEL FOR CROP YIELD PREDICTION"** is the bonafide work of **"S.PRABHAKARAN (731218205012), M.PRASANTH (731218205014)"** who carried out the project work under my supervision.

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Certified that this project report "CRYPTO CURRENCY MARKET PREDICTION USING MACHINE LEARNING" is the bonafide work of "N.MEENA (731218205009), S.MONISHA (731218205011), M.SUMATHI (731218205027)" who carried out the project work under my supervision.

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3.2 MINI PROJECT

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3.2 MINI PROJECT

1.3.1 **Problem solving Techniques**

Branch & Semester : Civil Engineering & VII semester

MINI PROJECT Batch :2018-2022

S.No	Title of the Project	Project Members	Reg.No.	Guide's Name	Dept	Relevance				
						Research	Environment	Caste Study	Ethics	Others
1	Planning, Designing and Estimating of School Building	J.Jayasurya M.Thamilselvi	731218103002 731218103302	Mrs.V.MOHANA PRIYA	CIVIL	✓	✓	✓	✓	
2	Planning, Analysing and Designing of a Shopping Mall	S.Munieswaran V.Rajkumar Tana Lalik	731218103005 731218103006 731218103009	Mr. G.RUTHISH KUMAR	CIVIL	✓	✓	✓	✓	
3.	Planning, Designing and Estimating of a School Building	M.Ganga M.Kavya S.Poornima	731218103001 731218103003 731218103301			✓	✓	✓	✓	

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Certified that this project report **PLANNING, DESIGNING AND ESTIMATION OF A SCHOOL BUILDING** is the bonafide work of **JAYASURYA.J (731218103002) & THAMILSELVI.M (731218103302)** who carried out Project work under my supervision.

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This is to certify that the project titled, "**PLANNING, ANALYSING AND DESIGNING OF A SHOPPING MALL**" is approved record of work done by **MUNIESWARAN. S (731218103005), RAJKUMAR. V (731218103006) and TANA LALIK (7312181030009)** in partial fulfilment for the award of **Bachelor of Civil Engineering** of Anna University of technology during the year 2021-2022.

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Certified that this project report **PLANNING, DESIGNING AND ESTIMATION OF A SCHOOL BUILDING** is the bonafide work of **POORNIMA.S (731218103301) GANGA.M (731218103001) KAVYA.M (731218103003)** who carried out Project work under my supervision.

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3.3 CASE STUDIES

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3.3 CASE STUDIES

DEPARTMENT OF MANAGEMENT & BUSINESS ADMINISTRATION

S.NO	NAME OF THE CASE STUDY	OUTCOME REPORT	TOTAL STRENGTH OF STUDENTS
1.	ORGANIZATIONAL CULTURE CASE STUDY	It defines an ethical dilemma as a situation happens when person must make a choice among mutually exclusive alternatives.	53
2.	HUMAN RESOURCE MANAGEMENT CASE STUDY	Everything is possible with a discussion Choosing the best leadership style in modern business environments	

ORGANIZATIONAL CULTURE CASE STUDY

Rajini and Kamal both of them are postgraduates in management under different streams from the same B-School. Both of them are close to each other from the college days itself and the same friendship is continuing in the organization too as they are placed in the same company, Hy-tech technology solutions.

Rajini placed in the HR department as employee counsellor and Kamal in the finance department as a key finance executive. As per the grade is concerned both are at the same level but when responsibility is concerned Kamal is holding more responsibility being in core finance.

By nature, Rajini is friendly in nature and ready to help the needy. Kamal is silent in nature ready to help if approached personally and always a bit egoistic in nature. They have successfully completed 4 years in the organization. And management is very much satisfied with both of them as they are equally talented and constant performers.

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Rajini felt that now a day's Kamal is not like as he uses to be in the past. He noticed some behavioural changes with him. During general conversations, she feels that Kamal is taunting her that she is famous among the employees in the organization, on the other hand, he is not even recognized by fellow employees.

One morning Mr. Balu General Manager Hy-tech technology solutions shocked while going through the mail received from Kamal about his resignation. Mr. Balu called Rajini immediately and discussed the same as she is close to Kamal. By hearing the news Rajini got stunned and said that she does not know this before she also revealed here current experience with him. Mr. Balu who does not want to lose both of them promised her that he will handle this and he won't allow Kamal to resign.

In the afternoon Mr. Balu took Kamal to Canteen to make him comfortable after some general discussion he starts on the issue Kamal, after some hesitation, opened his thinking in front of Mr. Balu.

The problem of Kamal is

1) When he comes alone to canteen the people from others don't even recognize him but if he accompanied by Rajini he gets well treated by others.

2) one day both of them entered the company together the security in the gate wished them but the next day when he came alone the same security did not do so.

3) Even in meetings held in the office, the points raised by Rajini will get more value so many times he keeps silent in the meeting.

It happens to Kamal that he has to face such degradation in each day of work which totally disturbs him. Kamal also questioned that Rajini and myself have the same qualification, from the same institute, passed out in the same year both with first class. We have the same number of experiences in this organization. Moreover, the responsibilities with me are more valuable than those of Rajini. After all these things if I am been ignored or unrecognized by the fellow employees my ego does not allow me to continue here".

By listening to this statement Mr.Balu felt that it is not going to be very difficult to stop his resignation. Mr. Balu explained Franklin the reasons for such partial behaviour of the employees. After listening to Mr. Balu Kamal said sorry for his reaction and ready to take back his resignation. And he called Rajini and spoke with like before.

Questions:

Find the reason that Mr. Balu would have given to Kamal.

Solution

Mr. Balu listening to this case understood the situation and realized the reason behind the partial

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response given by the employees towards Kamal and Rajini. As Kamal said both Rajini and Kamal are passed out from the same college in the same year. Both of them joined the company together both have the same experience. Even in performance-wise, both stands in the same level i.e. both are constant performers and good performers.

Kamal analyzed all the above-said similarities between him and Rajini. He also stated that he holds more responsibility than that of Rajini. One thing Kamal did not notice or analyzed is the job profile of Rajini. It is true that Kamal holds more responsibility than that of Rajini but when it comes to direct interaction with employees Rajini wins the employees' attention in this aspect.

Rajini being a counsellor in HR she faces the employees every day. She developed good rapport among the employees due to her friendly nature. She is always remembered by the employees whenever they face any problem as she gives good counselling and most of the time she suggests the best solutions for such issues.

Kamal though holding a key position in finance his profile does not allow him to interact with the employees. Though he has a helping tendency he does only when someone approached him personally. As the employees of other departments do not have any relation with him they never approach him for help. Mr.Balu having a good experience understood these things when Kamal explained his problems one by one. Later he relates each situation, explained by kamal with the above said reasons and made Kamal understood the reality.

Mr. Balu said that the security in the gate or the employees in the canteen who recognized Rajini and not Kamal would have interacted with her during counselling or approached her for any issues. And as usual, she would have counselled well or solved the issues of them that is the reason why they treat her and wish her whenever where ever they meet her. When it comes to the case of Kamal they would have hardly met him or interacted with him.

When it comes to the point that even in-office meetings Rajini, points are valued so Kamal keeps mum. For this, Mr. Balu replied that the points put forward by him would be related to employees or from the employees' point of view which actually the management wants to know so they give value to his points. And as quoted Kamal after, one or two such incidents keep silent in the meeting. He never made an attempt to raise some suggestions so management does not have any option to listen to that suggestion.

After listening to all the explanations given by Mr. Balu , Kamal realized his mistake and felt proud of the Rapport developed by Rajini among the employees. He said to Mr. Balu that he will take back his resignation. And rushed to Rajini to make an apology and to meet her as a friend as like his college days.

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HUMAN RESOURCE MANAGEMENT CASE STUDY

ABC Public Ltd Company is well known for its welfare activities and employee-oriented schemes in the manufacturing industry for more than ten decades. The company employs more than 800 workers and 150 administrative staff and 80 management-level employees. The Top-level management views all the employees at the same level. This can be clearly understood by seeing the uniform of the company which is the Same for all starting from MD to floor level workers. The company has 2 different cafeterias at different places one near the plant for workers and others near the Administration building. Though the place is different the amenities, infrastructure and the food provided are of the same quality. In short, the company stands by the rule of **Employee Equality.**

The company has one registered trade union. The relationship between the union and the management is very cordial. The company has not lost a single man day due to strike. The company is not a paymaster in that industry. The compensation policy of that company, when compared to other similar companies, is very less still the employees don't have many grievances due to the other benefits provided by the company. But the company is facing a countable number of problems in supplying the materials in the recent past days. Problems like quality issues, mismatch in packing materials (placing material A in the box of material B) incorrect labelling of material, not dispatching the material on time, etc…

The management views the case as there are loopholes in the system of various departments and hand over the responsibility to the HR department to solve the issue. When the HR manager goes through the issues he realized that the issues are not relating to the system but it relates to the employees. When investigated he come to know that the reason behind the casual approach by employees in work is

- The company hired new employees for a higher-level post without considering the potential internal candidates.
- The newly hired employees are placed with higher packages than that of existing employees in the same cadre.

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Questions:

1. **Narrate the case with a suitable title for the case. Justify your title.**

Solution

Employee Equality is not the need for every hour. In the above-said case, Watson Ltd had provided all facilities to employees at each grade in an equal manner. But still, the employees started creating certain issues like materials are meeting the quality supply schedule is not met etc. And the HR manager said that the policy of hiring new employees for the higher post without considering old potential employees is the major problem.

"Employee recognition VS Employee equality". As the HR manager states that employees are not been recognized for the potential rather the company has gone for new recruitment. Because of which the company faces problems.

2. **The points rose by the HR manager as the reason for the latest issues in the organization is justifiable or not. Support your answer with Human resource related concepts.**

Yes, the points raised by the HR manager is justifiable because "Human beings are social Animals as popularly" said by many Human resources Scholars. So human minds demand social recognition, self-respect, consideration, etc for their work and performance.

In the above-said case, even the company provides and stands by the concept of employee equality when it fails to recognize the potential talents of existing employee they felt dissatisfaction towards the organization and they showed in the way of quality issues and slow down production.

RELATED HR CONCEPT:

Slow down Production:

The concept of slow down production is a type of employee's strike. The Industrial Relations sates that when the employee wants to show their dissatisfaction to the management but don't want to go for strike they follow slow down strike. The impact of which will be understood after a particular time period.

Employee Recognition:

Human beings can be easily motivated by Rewards and recognition than that of money. In this case, also the employee is not satisfied even after all facilities just because of the reason that they are not recognized.

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Hawthrone Experiment:

In the four types of test conducted by Elton Mayo, the remarkable hike in production is recognized in the stage when they consulted the employees for the management decisions regarding them. The same thing was missing in Watson Ltd. Before the new hires if the management consulted the employees both management and employees would have avoided this issue

Hygiene Factor:

The theory of hygiene factors states that there are certain factors related to employees the presence of which will not create a major impact but the absence of such things will lead to a de motivation to the employees. Employee Recognition is one such factor when the management fails to do so it will Detroit the employees to a great extent.

3. **Help the organization to come out from this critical issue. If you are in the role of HR manager what will be your immediate step to solve this case.**

If I was in the post of the HR manager I will try to discuss the issue and ask for the reason from the management for new recruiting rather than considering available potential talents. I will personally analyse the reasons provided by management and if acceptable I will discuss the same with the employees. Everything is possible with a discussion. So I will discuss and convince the employee that this won't happen again in the organization. I will also initiate the collective bargaining process for reasonable salary hike for the existing employees.

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