



# **PMC TECH**

# **Er. PERUMAL MANIMEKALAI**

# **COLLEGE OF ENGINEERING**

(Apporved by AICTE New Delhi & Affiliated to Anna University, Chennai) (Accredited by NAAC with 'A' Grade & An ISO 9001-2015 Certified Institution) NH-7,17<sup>th</sup> KM, Hosur-Krishnagiri Highways,Koneripalli,Hosur-635 117. website:www.pmctech.org

# **DEPARTMENT OF MECHATRONICS ENGINEERING**

# ANNUAL NEWS LETTER

Volume-1

Issue-8

June-2022

#### **CHIEF PATRON**

Mr. P. Kumar, -Chairman & Correspondent

#### PATRONS

Mrs. P. Mallar, Secretary & Trustee

Mrs. S. Sasirekha, Trustee

#### **CO-PATRON**

Dr.S.Chitra, Principal

#### HOD

Prof. M.Sahithullah., M.E., Ph.D.,

#### **EDITOR**

Mr.N.Manivel,M.E.,

AP/MCO

PMC TECH-ANOVER VIEW ABOUT THEDEPARTMENT TECHNICAL SYMPOSIUM "ROBOTECH-2K21" WORKSHOP INDUSTRIAL VISIT TECHNICAL SEMINAR TECHNICAL SEMINAR ADD ON COURSE INDUSTRIAL TRAINING INDUSTRIAL TRAINING CERTIFICATION LAB FACILITIES

#### **CHAIRMAN'S MESSAGE**



"The Institute not only extends good campus and state of the art computing facilities to the Students but also aims at giving those competencies that will make them leaders and trendsetters in their respective field, in this age of competition"

PMC TECH is committed to develop young minds for creative leadership in business and a proactive and useful role in social transformation. Today the need for being proactive and constructive is more acute than ever before due to the sweeping change influencing every aspect of our life. Therefore, there is need for action based on holistic training of youth to take on varied challenges of life. An opportunity to study at PMC TECH empowers a student to acquire knowledge and develop skills that will enable him to lead a highly productive, rewarding and holistic life. As a part of PMC TECH's commitment towards quality technical education and excellence, we embarked on promoting Faculty Development Program, Seminars, Workshops and Conferences, which will keep the faculty and students abreast of their field.

Shri. P.Kumar,

Chairman & Correspondent, PMC TECH.

#### SECRETARY'S MESSAGE



"The goal of education is the advancement of knowledge and the dissemination of truth"

The rapid rate of technological advancement and the information revolution have opened new series of challenges as well as opportunities. We aim to prepare the students to be successful in their workplace. It aims to prepare the students with technical knowledge and capabilities, flexibility and an understanding of the societal context of corporate world. We give the students support and encouragement they need to reach their full potential. We strive to give professional education a new perspective and achieve perfection in all spheres. We provide a pleasant & intellectually stimulating environment. The main reason for our tremendous performance is the faculty, which makes PMC TECH stand out from the rest of engineering colleges and Institutes. I wish to assure all concerned that no efforts will be spared to bring PMC TECH as one of the top Technical education Institutions.

#### Smt .P.Mallar,

Secretary &Trustee, PMC TECH.

#### TRUSTEE MESSAGE



### "Education is the ability to listen to almost anything without losing your temper or self-confidence"

PMC TECH is committed to creating an ambience for nurturing innovation, creativity and excellence in our students. We aim to prepare the young engineers and managers to confidently and competently face the challenges of intensifying competition by imparting high quality technical and managerial education coupled with appropriate training and wide exposure to the state-of-art practices. Our educational programmes lay emphasis on all round personality development and also in inculcating human values and professional ethics which help our students become more humane and socially alive to lead a meaningful life. This newsletter will help the students and faculty members to make them aware of different activities of their department as well as the other departments and will develop a better culture and academic environment. Further this will boost the morale of students and faculty to participate in future activities.

Smt .S.Sasirekha, Trustee, PMC TECH.

#### **PRINCIPAL MESSAGE**



"I believe that education is not just about teaching curriculum, it is also about the development of human intellect, capability to think independently and speak articulately. Through numerous student activities the college imparts all these life skills in students. Education in PMC TECH also emphasizes on development of personality, inter- personal skills and instilling the right values" With a devoted and highly qualified set of faculty members, well provided infrastructure and efficient administrative staff, we always impart best education by giving in depth knowledge in the subject. We know that mere education does not make you a complete man / woman.. With our rich library, we want you to develop reading habits. We always endeavor that when student go out. They should be recognized as highly knowledgeable, amiable, active and greatly trust worthy individual. Thanks to the educationally committed management, we have the reputation that we provide all the facilities and amenities. May be because of all these,. I am thankful to all my colleagues who are striving hard to establish PMC TECH as one of the leading Engineering Institutions.

Dr.S.Chitra., M.E., Ph.D.,

Principal.

#### HOD MESSAGE



"Our nuclear scientists and engineers have done a splendid job, and naturally, the entire nation has risen to salute their professional excellence, discipline, and patriotism. They have had the benefit of having been led in the past by great men like Homi Bhabha and Vikram Sarabhai. "

I feel ecstatic to introduce you to Department of Mechatronics Engineering, which is the foundation of engineers and Department of Mechatronics Engineering combines Mechanical Engineering and Electronics Engineering and strives for increasing the knowledge, enhancing the critical thinking, ability to change information into knowledge and power of analyzing the things technically of each and every individual of ever changing society through students. We always intend to impart knowledge through a closed knit family of highly competent faculty. Our Laboratories have been very well established not only to cover complete syllabus but to motivate students to learn beyond the syllabus which definitely develops complete knowledge of the subject (both the practical and theoretical depth of knowledge) and develop skill sets of students to become promising engineers in future. I would like to conclude with the words of Thomas Friedman who has rightly opined "World is flat opportunities are immense. It's just a question of identifying opportunities and making the best of them". I wish a very best of luck to the students.

#### Prof.M.SAHITHULLAH.,

HOD/MCO.

# **PMC TECH-ANOVERVIEW**

PMC TECH group of Institutions consisting of Engineering College, polytechnic and ITI were established in the year 1996 by Mr.P.Kumar, Our founder and Chairman and sponsored by Er.Perumal Manimekalai Telugu Minority Educational and Charitable Trust. It is situated closer to the Industrial Hub, Hosur, Tamilnadu.

Er.Perumal Manimekalai College of Engineering, established in the Academic year 2002-03 is approved by All India Council for Technical Education (AICTE) and affiliated Anna University.

PMC TECH creates unique opportunities, provides individualized educational challenges, promotes high order thinking skills and maintains a strong tradition of academic excellence for students. The college is equipped with world class infrastructure and highly qualified, experienced faculty members. An active Placement Training and Welfare Cell is functioning with full enthusiasm with the aim of placing the students in top-notch companies. PMCTECH, a premier institution for higher education seeks to impart value added technical education and always aiming at excellence along with inculcation of ethical, moral, & professional values, with national welfare in heart.

# **ABOUT THE DEPARTMENT**

Department of Mechatronics Engineering is a professional discipline that combines Electrical and Mechanical Engineering with Computer Technology and Control Engineering. Being a part of the PMC TECH family from the year 2013, it uses and provides new technologies in automation and robotics. The Department has highly qualified and experienced faculty members to strengthen and fulfill the needs of the students from rural community. It has highly equipped with modernized laboratories for the benefit and betterment of the students society in the field of Mechatronics Engineering. Tasks in hazardous environments or precise positioning to be accomplished suitably for the benefits of health, safety, society and economy.

#### VISION

To create a centre of excellence by imparting relevant technical knowledge and wisdom to the students' through innovative teaching and extensive practical exposure in the field of mechatronics coupled with relentless rendezvous in research to excel in their chosen career.

#### **MISSION**

To ensure unique and effective, teaching-learning process through imparting in depth knowledge of the concepts, principles, and its applications.

To enrich the students with extensive industry oriented practical knowledge through state of art laboratories meeting the needs of industry and society

✤ To provide distinctive opportunities for finding innovative solutions to the complex problems for the growth and development in industry and society.

#### PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

The graduates will be able to,

- 1. Inculcate Knowledge in Basic Engineering Sciences and Fundamentals of Mechanical, Electronics and Electrical Engineering.
- 2. To Design, Develop Product and applications in the field of Automation and Mechatronics.
- 3. Prepare Graduates to be valuable Engineers with excellent logical and Problem solving skills in a multidisciplinary environment.

#### PROGRAM SPECIFIC OUTCOMES (PSOs)

- 1. Design and investigate the problems related to instrumentation, control, automation, and robotics provide solutions.
- 2. To develop a Mechatronics system to meet the requirements and specifications.
- 3. To analyse and improve the performance of a Mechatronics system and enhance the intellectual capabilities of the system.

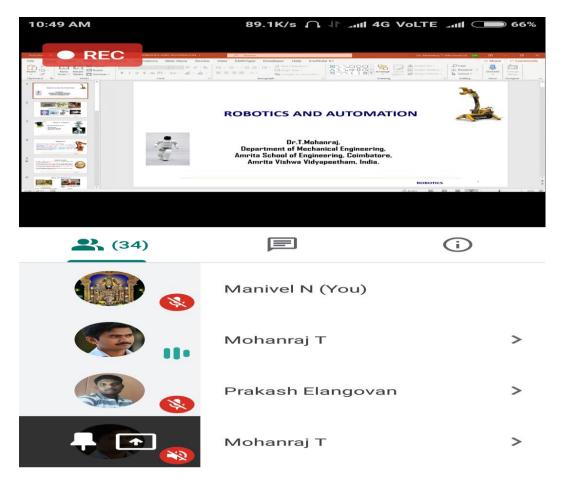
### **TECHNICAL SYMPOSIUM ''ROBOTECH-2K21''**



Technical Symposium ROBOTECH-2K21 Principal Madam gave Felicitation Address



Technical Symposium ROBOTECH-2K21 HoD Sir gave Welcome Address



The Chief Guest gave Keynote Address

The Department of Mechatronics Engineering organized a one day National Level Technical Symposium on "**ROBOTECH-2K21**" on 27-10-2021. Shri. P. Kumar, Secretary & Correspondent delivered the Felicitation Address. Smt.P.Mallar, Trustee delivered the Special Address. **Prof.M.Sahithullah**, Head of the Department delivered the Welcome Address. **Dr.T.Mohanraj**, Assistant Professor(Sr.Grade), Amrita school of Engineering, Coimbatore as Chief Guest and delivered the Keynote Address. In this Symposium about 55 participants were participated and presented their papers. Finally **Mr.N.Manivel**, **AP** of Mechatronics Engineering proposed the Vote of Thanks.

# **WORKSHOP**

S.No	Title of event	Date	Chief Guest /Speaker	No of Participants	YEAR/ SEM
1	Industrial Robot	25.09.2021	Mr.G.Karthick, Director, Wayhead Technology Pvt Ltd, Chennai.	19	IV/VII
2	Industrial Robotics	22/11/2021 - 23/11/2021	Mr.G.Vignesh, Technical Coordinator, Axis Global Institute of Industrial Training ,Chennai.	53	II/IV,III/VI, IV/VII
3	PCB Design Using Proteus 8.0	05/05/2022 - 06/05/2022	Dr.T.Rajesh, Technical Lead Engineer, Innovate Engineering Product, Hosur	32	II/IV,III/VI

# **Industrial Robot**



One day Workshop on Industrial Robot Seminar Session



One day Workshop on Industrial Robot Practical Session

The Department of Mechatronics Engineering organized a one day Workshop on **"Industrial Robot"** during 25-09-2021 for the benefit of Final year students. Mr.G.Karthick, Director, Wayhead Technology Pvt Ltd, Chennai, was the Chief Guest and given the Lecture with hands on Training.

## **Industrial Robotics**



Two days Workshop on Industrial Robot Seminar Session



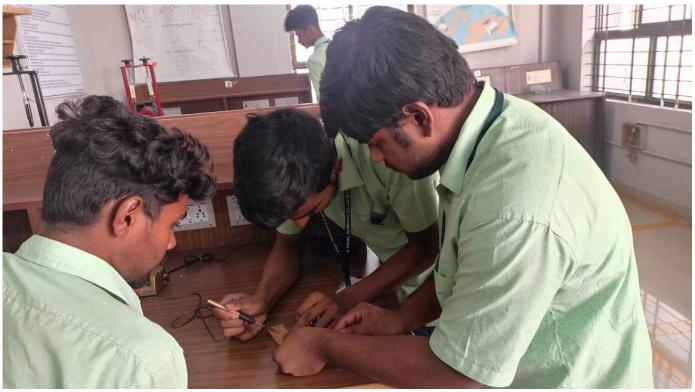
Two days Workshop on Industrial Robot Practical Session

The Department of Mechatronics Engineering organized a Two days Workshop on **"Industrial Robotics"** during 22-11-2021 to 23-11-2021 for the benefit of Second, Third &Final year students. Mr.G.Vignesh, Technical Coordinator, Axis Global Institute of Industrial Training, Chennai, was the Chief Guest and given the Lecture with hands on Training.

### **PCB Design Using Proteus 8.0**



Two days Workshop on PCB Design Using Proteus 8.0



Two days Workshop on PCB Design Using Proteus 8.0

The Department of Mechatronics Engineering organized a Two days Workshop on **"PCB Design Using Proteus 8.0"** during 05-05-2022 to 06-05-2022 for the benefit of Second & Third year students. Dr.T.Rajesh, Technical Lead Engineer, Innovate Engineering Product, Hosur was the Chief Guest and given the Lecture with hands on Training.

#### **INDUSTRIAL VISIT**

S.NO	DEPARTMENT &YEAR	ORGANISATION VISITED WITH ADDRESS	DATE	NO.OF STUDENTS
1	MCO-III & IV	Indian Machine Tool Manufacturing Association, Bangalore.	11.11.2021	26
2	MCO-II & III	Innoforge Private Limited, Hosur	09.11.2021	32
3	MCO-II & III	Mahalakshmi Plastics Private Limited, Hosur.	09.11.2021	32
4	MCO-II & III	Hindustan Machine Tools Limited, Bangalore.	22.04.2022	32

### **Indian Machine Tool Manufacturing Association**



One day Industrial Visit at Indian Machine Tool Manufacturing Association, Bangalore

The department Mechatronics Engineering has been arranged a one day Industrial Visit at **"Indian Machine Tool Manufacturing Association",** Bangalore to the final year Mechatronics Engineering students on 11.11.2021. Mr.N.Manivel, AP/Mechatronics Engineering are the student coordinators.

# **INNOFORGE PRIVATE LIMITED**



One day Industrial Visit at INNOFORGE, Hosur

The department Mechatronics Engineering has been arranged a one day Industrial Visit at **"INNOFORGE",** Hosur to the Second & third year Mechatronics Engineering students on 09.11.2021. Mr.N.Manivel, AP/Mechatronics Engineering was the student coordinator.

# MAHALAKSHMI PLASTICS PRIVATE LIMITED



One day Industrial Visit at MAHALAKSHMI PLASTICS PRIVATE LIMITED, Hosur

The department Mechatronics Engineering has been arranged a one day Industrial Visit at **"MAHALAKSHMI PLASTICS PRIVATE LIMITED"**, Hosur to the Second & third year Mechatronics Engineering students on 09.11.2021. Mr.N.Manivel, AP/Mechatronics Engineering was the student coordinator.

# HINDUSTAN MACHINE TOOLS LIMITED



One day Industrial Visit at HMT Museum, Bangalore.



One day Industrial Visit at Hindustan Machine Tools Limited, Bangalore.

The department Mechatronics Engineering has been arranged a one day Industrial Visit Hindustan Machine Tools Limited, at Bangalore to the Second & third year Mechatronics Engineering students on 24.06.2019. Mr.K.Sureshkumar, AP and Mr.N.Manivel, AP/Mechatronics Engineering are the student coordinators.

#### **TECHNICAL SEMINAR**

S.NO	TITLE OF EVENT	CHIEF GUEST/SPEAKER	DATE	NO OF STUDENTS PATICIPATED	YEAR/SEM
1	Recent Trends in Industrial ROBOTs & IIOT	Mr.R.Prasanna, Assistant Manager, FANUC India Limited, Bangalore	18.11.2021	53	II,II,IV/III,V, VII
2	Industrial Automation	Mr.G.S.Nagaraj, Senior Engineer, Technical Sales, Beckhoff Automation PvtLtd, Bangalore.	25.11.2021	53	II,II,IV/III,V, VII
3	IT in Manufacturing	Mr. Ganesan Swaminathan, Co-Founder Consultants, AGM-IT (Retired), Ashok Leyland Ltd, Hosur.	07.04.2022	51	II,II,IV/III,V, VII
4	Industrial Automation	Mr.G.Vignesh, Technical Coordinator, Axis Global Institute of Insdustrial Training,Chennai.	11.04.2022	27	III,IV/,V,VII
5	SCADA	Mr.Mohammed Fareed,Project Engineer,IPCL Global Solutions Pvt Ltd, Bangalore.	16.05.2022	27	III,IV/,V,VII

# **INDUSTRIAL ROBOTS & HOT**



Technical Seminar on Recent Trends in Industrial ROBOTs & IIOT

A Technical Seminar on "*Recent Trends in Industrial ROBOTs & IIOT*" was conducted by Department of Mechatronics Engineering on 18-11-2021 to the Second, Third & final Year students. **Mr.R.Prasanna**, Assistant Manager, FANUC India Limited, Bangalore was the Chief Guest and gave the lecture in the Seminar.

# **INDUSTRIAL AUTOMATION**



Technical Seminar on Industrial Automation

A Technical Seminar on "*Industrial Automation*" was conducted by Department of Mechatronics Engineering on 25-11-2021 to the Second, Third & final Year students. **Mr.G.S.Nagaraj**, Senior Engineer, Technical Sales, Beckhoff Automation Pvt Ltd, Bangalore was the Chief Guest and gave the lecture in the Seminar.

# IT IN MANUFACTURING



Technical Seminar on IT in Manufacturing

A Technical Seminar on *"Industrial Automation"* was conducted by Department of Mechatronics Engineering on 07-04-2022 to the Second, Third & final Year students. **Mr. Ganesan Swaminathan**, Co-Founder Consultants, AGM-IT (Retired), Ashok Leyland Ltd, Hosur. was the Chief Guest and gave the lecture in the Seminar.

# **INDUSTRIAL AUTOMATION**



Technical Seminar on Industrial Automation

A Technical Seminar on "*Industrial Automation*" was conducted by Department of Mechatronics Engineering on 11-04-2022 to the Third & final Year students. Mr.G.Vignesh, Technical Coordinator, Axis Global Institute of Insdustrial Training, Chennai, was the Chief Guest and gave the lecture in the Seminar.

# **SCADA**



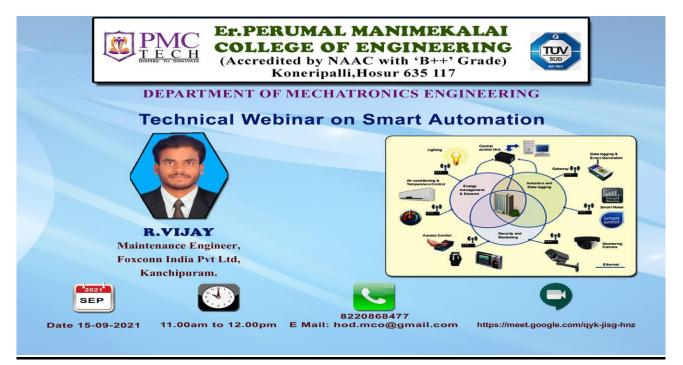
Technical Seminar on SCADA

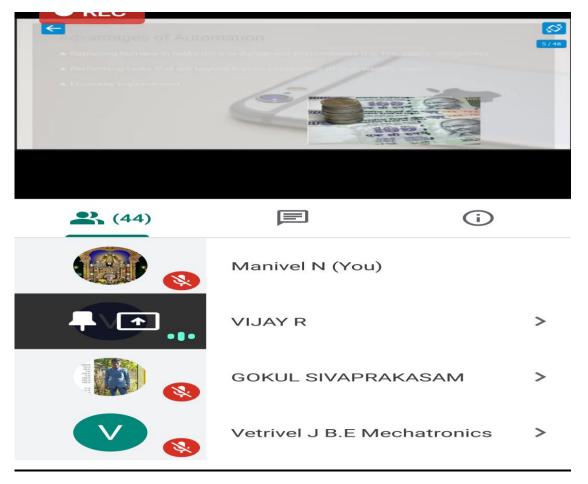
A Technical Seminar on "*SCADA*" was conducted by Department of Mechatronics Engineering on 16-05-2022 to the Third & final Year students. Mr.Mohammed Fareed, Project Engineer, IPCL Global Solutions Pvt Ltd, Bangalore was the Chief Guest and gave the lecture in the Seminar.

### **TECHNICAL WEBINAR**

S.NO	TITLE OF EVENT	CHIEF GUEST/SPEAKER	DATE	NO OF STUDENTS PATICIPATED	YEAR/SEM
1	SMART AUTOMATION	Mr.R.VIJAY, Maintenance Engineer, Foxcon India Pvt Ltd, Kanchipuram.	15.09.2021	53	II,II,IV/III,V, VII
2	INTRODUCTION TO 3D PROTOTYPING OF ARDUINO ROBOTS	Mr.JAIKISHAN PANDIRI Assistant Professor, Aditya College of Engineering and Technology, Andhra Pradesh.	29.10.2021	53	II,II,IV/III,V, VII
3	INTRODUCTION TO MACHINE TOOLS AND AUTOMATION	Mr.M.MAHESWARAN Senior Executive Officer, Indian Machine Tool Manufacturing Association, Bangalore.	24.11.2021	53	II,II,IV/III,V, VII

## **SMART AUTOMATION**

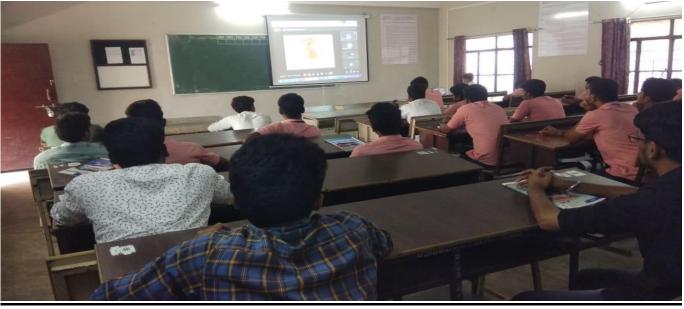




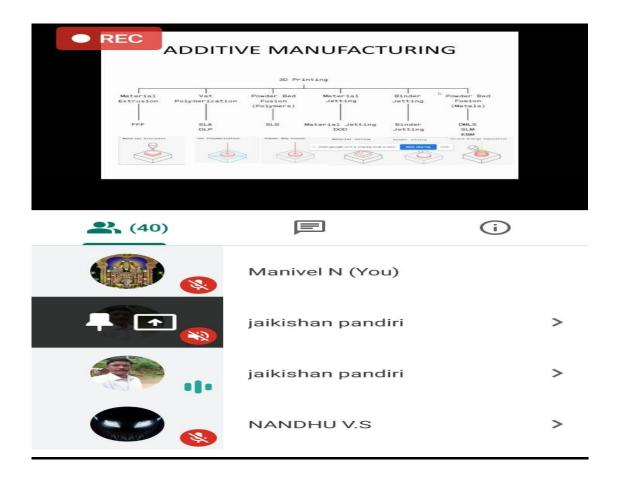
Technical Webinar on SMART AUTOMATION

A Technical Webinar on *"SMART AUTOMATION"* was conducted by Department of Mechatronics Engineering on 15- 09-2021 to the Second ,Third & final Year students. Mr.R.Vijay, Maintenance Engineer, Foxcon India Pvt Ltd, Kanchipuram was the Chief Guest and gave the lecture in the Webinar.

#### **INTRODUCTION TO 3D PROTOTYPING OF ARDUINO ROBOTS**



Technical Webinar On Introduction To 3d Prototyping Of Arduino Robots

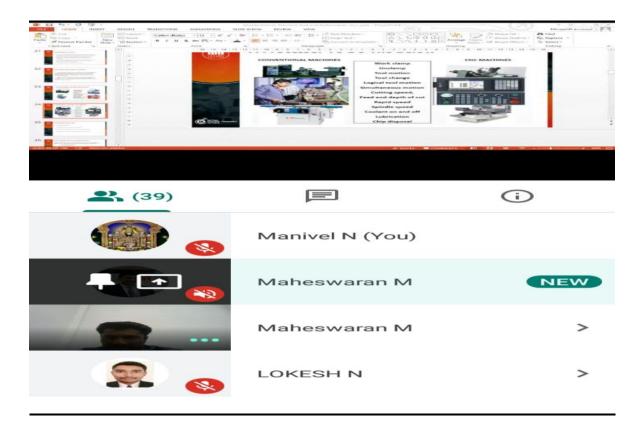


#### A Technical Webinar on "INTRODUCTION TO 3D PROTOTYPING OF ARDUINO ROBOTS

" was conducted by Department of Mechatronics Engineering on 29- 10-2021 to the Second ,Third & final Year students. Mr.JAIKISHAN PANDIRI, Assistant Professor, Aditya College of Engineering and Technology, Andhra Pradesh was the Chief Guest and gave the lecture in the Webinar.

### **INTRODUCTION TO MACHINE TOOLS AND AUTOMATION**





Technical Webinar on Introduction to Machine Tools and Automation

A Technical Webinar on "*Introduction to Machine Tools and Automation*" was conducted by Department of Mechatronics Engineering on 15- 09-2021 to the Second ,Third & final Year students. Mr.M.Maheswaran, Senior Executive Officer, Indian Machine Tool Manufacturing Association, Bangalore was the Chief Guest and gave the lecture in the Webinar.

## ADD ON COURSE

# **ROBOT PROCESS AUTOMATION**



Add on Course on ROBOTICS PROCESS AUTOMATION



Add on Course on ROBOTICS PROCESS AUTOMATION

Add on Course "*ROBOT PROCESS AUTOMATION*" was conducted by Department of Mechatronics Engineering on 23- 05-2022 to 11.06.2022 to the final Year students, **Mr.K.Srinath**, Senoir Associate RPA Developer, KGISL, Coimbatore, was the Chief Guest and gave the lecture in the Add on course

# **CNC TURNING& MILLING**



Add on Course on CNC TURNING& MILLING



Add on Course on CNC TURNING& MILLING

Add on Course "*CNC TURNING& MILLING*" was conducted by Department of Mechatronics Engineering on 10. 02.2022 to 18.02.2022 to the final Year students, Mr.C.Khader, AP/Mechatronics, PMC TECH Hosur was the Chief Guest and gave the lecture in the *Add on Course* 

### **INDUSTRIAL TRAINING**

S.NO	NAME OF THE	INDUSTRY NAME	PERIOD
	STUDENS		
1	BOOBALAN.R	FANUC INDIA PRIVATE LIMITED	10.02.2022-18.02.2022
2	DILIPKUMAR.B	FANUC INDIA PRIVATE LIMITED	10.02.2022-18.02.2022
3	GOWTHAM.K	FANUC INDIA PRIVATE LIMITED	10.02.2022-18.02.2022
4	KIRAN.B	FANUC INDIA PRIVATE LIMITED	10.02.2022-18.02.2022
5	KALIMUTHU.A	FANUC INDIA PRIVATE LIMITED	10.02.2022-18.02.2022
6	LOKESH.N	FANUC INDIA PRIVATE LIMITED	10.02.2022-18.02.2022
7	MURALIDHARAN.M	FANUC INDIA PRIVATE LIMITED	10.02.2022-18.02.2022
8	PRADEEP.V	FANUC INDIA PRIVATE LIMITED	10.02.2022-18.02.2022

9	TAMILARASAN.S	FANUC INDIA PRIVATE LIMITED	10.02.2022-18.02.2022
10	SRINIVASAN.M	FANUC INDIA PRIVATE LIMITED	10.02.2022-18.02.2022
11	LOKESH.N	ASHOK LEYLAND LIMITED	24.03.2022-23.04.2022
12	ARUN.N	ASHOK LEYLAND LIMITED	24.03.2022-23.04.2022
13	DILIPKUMAR.B	SKILL SONICS INDIA	07.02.2022-26.03.2022
14	SRINIVASAN.M	SKILL SONICS INDIA	07.02.2022-26.03.2022
15	SEENIVASAN.V	SKILL SONICS INDIA	07.02.2022-26.03.2022
16	ARUN.N	SKILL SONICS INDIA	07.02.2022-26.03.2022
17	RANJITHKUMAR.K	SKILL SONICS INDIA	07.02.2022-26.03.2022
18	LOKESH.N	SKILL SONICS INDIA	07.02.2022-26.03.2022

# **INDUSTRIAL TRAINING CERTIFICATION**





Er. PERUMAL MANIMEKALAI COLLEGE OF ENGINEERING (An accredited by NAAC with 'A' / An ISO 9001:2015 Certified Institution)

NH7, Koneripalli, HOSUR - 635 117, Krishnagiri Dist, Tamilnadu, India.



Rameshbabu R.

Manager, FANUC India Academy.

#### In Association With FANUC INDIA Private Limited, Bangalore

#### Certificate





S- CIT









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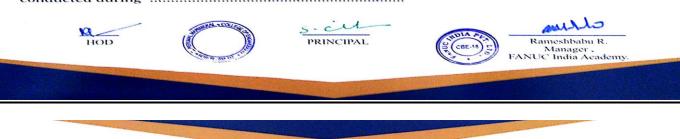
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Certificate

This is to Certify that R: BOORDAN, B.E. MECHATRONICS. ENAUNEERING. from Ex. PERUMAL. MANIMERALAI. COLLEGIE. OF ENAUNEERING. HOSVR. has successfully completed training on CNC programming (Turning and Milling) conducted during .10:02: 2022. TD. 18: 02: 2022...





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#### Certificate







#### LAB FACILITIES

- Strength of material and Fluid mechanics and Machinery Laboratory.
- Electrical Machines and Drive Laboratory.
- Microprocessor and Microcontroller Laboratory.
- Computer aided machine drawing

- Power Electronics Laboratory.
- Sensor and Instrumentation Laboratory.
- Dynamics Laboratory.
- Applied Hydraulics and Pneumatics Laboratory.
- Industrial Automation Laboratory.



**Dynamics Laboratory** 



**Applied Hydraulics and Pneumatics Lab.** 



**Electrical Machines and Drive Laboratory** 



**Manufacturing Laboratory** 



CAD Laboratory



Strength of material Laboratory