R.M.K. COLLEGE OF ENGINEERING AND TECHNOLOGY

R.S.M NAGAR, PUDUVAYOL-601 206

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CENTRE OF EXCELLENCE

1. **EMBEDDED COE**
2. **TELECOM COE**
3. **ARTIFICIAL INTELLEGENCE AND DATA SCIENCE**
4. **INTERNET OF THINGS COE**
5. **AUTOMOTIVE ELECTRONIC COE**

1. EMBEDDED CENTRE OF EXCELLENCE

- **Dr. N. GANGATHARAN** - Professor and Head - Dept of ECE
- **Mr. C. KARTHIKEYAN**- Assistant Professor - Dept of ECE

OBJECTIVES

- To inspire the students to develop projects and to do research in Embedded Systems Domain
- To create a platform for the students in acquiring the latest technology trends in the field of Embedded Systems through Industry Partnership
- To prepare industry ready students for a successful career in the field of Embedded Systems

EMBEDDED CENTRE OF EXCELLENCE

The Center of Excellence – Embedded is offered for our Electronics and Communication Engineering department in R.M.K group of institutions.

The Embedded Centre of Excellence laboratory is established at R.M.K College of Engineering and Technology in the year 2016 by ,

Smt.KAVITHA NAIDU ,

Wipro Technologies Ltd.,

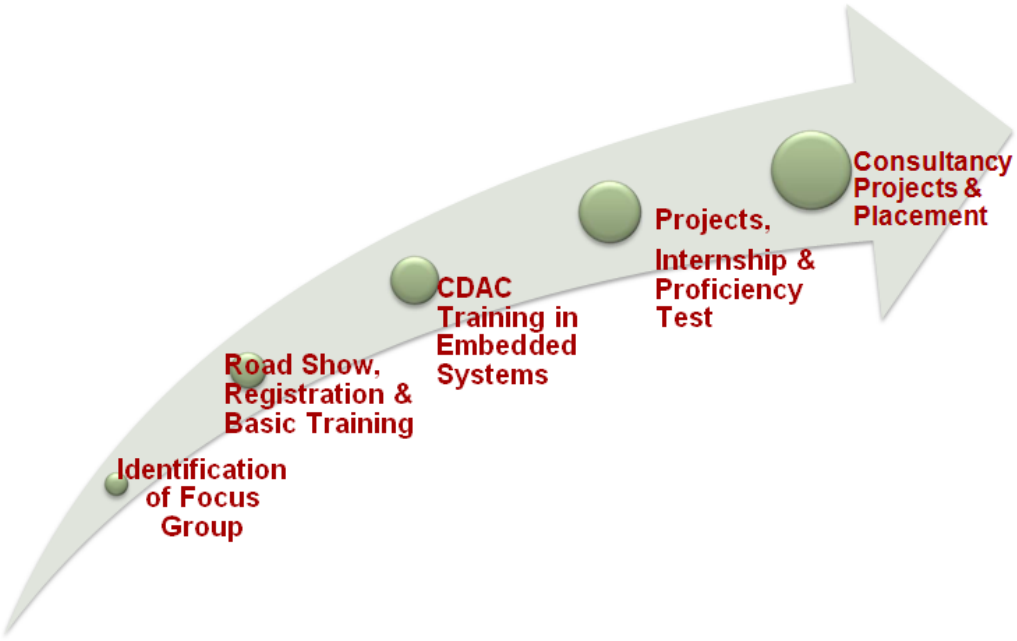
ASSOCIATED COMPANIES

The Embedded centre of excellence was associated with Wipro Ltd, TATA ELXSI, e-con systems, KPIT, embed UR, Valeo, VVDN Technologies, HCL Technologies and various companies.

ADVISORY COMMITTEE MEMBERS

S.No	NAME OF THE MEMBER	DESIGNATION	NAME OF THE ORGANIZATION
1	Mr. Ganeshan Kailasam	Architect	WIPRO Limited
2	Ms. Kavitha Naidu	Senior Delivery Manager	WIPRO Limited
3	Mr. Giri K K	VP & Global Delivery Head	L& T Technology Services Limited
4	Mr. Maharajan Veerabahu	Co-founder & Head Software services	E-con Systems India Pvt. Ltd.
5	Mr. Sreedharan NG	Senior Vice President of Design and Engineering	Syrmatech

STRATEGY



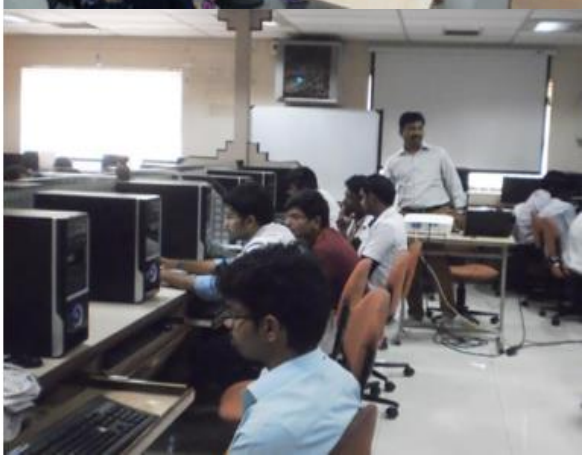
TRAINING COURSE CONTENT

- Programming Concepts
- Microcontrollers and Interfacing
- Embedded Operating Systems
- Real-Time Operating Systems
- Internet of Things
- Mobile Programming
- Embedded Hardware Design & Development
- Aptitude & Effective Communication
- Project and Seminar

TRAINING ROLLOUT PLAN

Year	Topics
Second Year	Introduction to Embedded system, Real time system and RTES Target image for embedded system Basics of Hardware and Programming Embedded programming - Part I Debugging - Basics, Tools and Techniques
Third Year	Simple communication protocols Embedded Operating Systems Embedded programming - Part II Advance processor architecture Multicore programming
Final Year	Internet of Things Real Time Operating Systems Mobile Programming
Every Module	Projects

Guest Lectures and Project Expo



GUEST LECTURE SESSIONS

Activities for the Academic year 2017-2018

S.No	Date	Name of the Training Program	Name Training Academy	Target Student
1.	06.06.2017	Project presentation in RMKEC	Faculty Coordinators	2013 Batch Wipro Placed Students
2.	18.06.2017 To 20.06.2017	Embedded Systems Training for Faculty Coordinators	Syllabus Plus	Faculty Coordinators
3.	14.07.2017	Project Orientation Programme	Faculty Coordinators	IV year students
4.	09.08.2017	Project Review	Faculty Coordinators	IV year students
5.	26.08.2017	CoE Selection for 2015 Batch	Faculty Coordinators	III year students
6.	28.09.2017	CoE Selection for 2016 Batch	Faculty Coordinators	II year students
7.	18.12.2017	CDAC Road Show	CDAC members	III year Students
8.	05.01.2018	Project Orientation Programme	Faculty Coordinators	III year students
9.	25.01.2018	CoE Meeting	Placement Officer	Faculty Coordinators
10	31.01.2018	CoE Lab Inauguration at RMKEC	Ms.Kavitha Naidu Senior Delivery Manager Wipro Ltd	IV,III and II year CoE Students
11	05.02.2018 To 13.02.2018	Module 1 CDAC Training	CDAC Faculty	III year students

Activities for the Academic year 2018-2019

S.No	Date	Name of the Training Program	Name Training Academy	Target Student
1.	05.07.2018	One day workshop on C Programming Skills	Mr.P.Govindaraju CDAC Faculty	IV year CoE Students
2.	23.07.2018	Orientation Programme for project Contests and Coding Skills	Internal Faculties	III year CoE Students
3.	07.08.2018-14.08.2018	Final Module on CDAC Training	Mr.D.Venakat Ramana, CDAC	Registered students
4.	14.08.2018	Guest Lecture on Recent Industry Trends in Embedded Systems	Mr.D.Venakat Ramana,Mangaer, DSY Embedded Technologies	III , IV years CoE Students
5.	30.11.208-05.12.2018	Phase 1 Training	Internal Faculties	II , III years CoE Students
6.	05.12.208-08.12.2018	CDAC Training	CDAC trainers	Registered students
7.	13.12.2018	Screening test –Coding skills	Internal Faculties	II year CoE Students
8.	03.01.2019-07.01.2019	CDAC Training	CDAC trainers	Registered students
9.	22.02.2019	Guest Lecture on Embedded system Industry perspective	Mr.V.Maharajan, E-Con systems	II , III years CoE Students
10.	14,15,17,18,19 June 2019	Phase 2 Training	Internal Faculties	II , III years CoE Students

Activities for the Academic year 2019-2020

S.No	Date	Name of the Training Program	Name Training Academy	Target Student
1.	16.10.2019	Orientation session-Embedded & Imaging technology	HCL Executives	III Embedded CoE students
2.	28.11.2019	HCL Screening test	HCL Executives	III Embedded CoE students
3.	23.12.2019	Career Oriented –HCL Embedded system Training	HCL Technologies	III Embedded CoE students
4.	20.02.2020	HCL Screening test	HCL Technologies	III Embedded CoE students
5.	07.03.2020	Arduino-Basics to Advanced Techniques	Mr.V.S.Suresh, Danfoss Industries	II, III Embedded CoE students
6.	11.03.2020	Embedded system-The Future Scope	Mr.Shabarinath Premlal, Respro Labs	II, III Embedded CoE students
7.	25.04.2020	ES & RTA	Ms,.N.Swetha (Alumni)	II Embedded CoE students
8.	28.04.2020	Opportunities in ES	Ms,.N.Swetha Alumni	III Embedded CoE students
9.	05.06.2020	Raspberry Pi	Mr.Ravindran Rajendran, Founder DreamerIndia Innovation	II, III Embedded CoE students
10	11.06.2020	Embedded Hardware and Software in Automotive Domain	Ms.T.Devisree, Design Engineer, KPIT	II, III Embedded CoE students
11	13.06.2020	Industrail IoT 4.O	Mr.R.Abhishek, Project Engineer, Wipro Technologies	II, III Embedded CoE students
12	24.09.2020	HCL Career Oriented Training	Internal faculties	2018 batch Embedded CoE students
13	07.08.2020	HCL Orientation session on ES and Image technology Training	Internal faculties	2018 batch Embedded CoE students
14	12.08.2020	HCL Taining on C Programming and Introduction to ES	HCL Executives	2018 batch Embedded CoE students

Activities for the Academic year 2020-2021

Date	Topic	Faculty Name	Time
19/05/2021	**Embedded System Overview and Project development in Embedded System Domain**	Ms.M.Shakunthala-AP/ECE-RMDEC Mr.C.Karthikeyan-AP/ECE/RMKCET	4:00 P.M. to 6:00 P.M.
20/05/2021	**Introduction to Microcontroller Programming**	Mr.S.Sayeekumar – AP/EEE/RMDEC	4:00 P.M. to 6:00 P.M.
21/05/2021	**Hands on Training - 8051 Microcontroller using Keil and Proteus**	Ms.G.Geethamahalakshmi – AP/EEE/RMKCET Mr.N.Hariharan –AP/EEE/RMKCET	4:00 P.M. to 6:00 P.M.
22/05/2021	**Hands on Session – Tinkercad Tool and Programming for Arduino**	Ms.K.Jeevitha –AP/ECE/RMKEC Mr. P.Gunasekar – AP/ECE/RMKEC	4:00 P.M. to 6:00 P.M.

R.M.K. GROUP of INSTITUTIONS

(An Autonomous Institution)

Approved By AICTE , New Delhi & Affiliated To Anna University, Chennai

All the Eligible UG Programs are Accredited by NBA & Institution Accredited by NAAC

R.S.M. Nagar, Kavaraipettai-601206 , Gummidipoondi TK., Thiruvallur Dist., Tamilnadu,India

EMBEDDED SYSTEMS CoE

PRESENTS

WEBINAR on

Microcontroller Applications

Join us on Google Meet

http://meet.google.com/ypq-anqy-osg

DATE & TIME : 08.05.2021 @ 10 am

Target Audience : II Year Embedded Systems CoE Students

Mr.Ganesh Skandha
Senior Engineer-II
Microchip Technology
Chennai

ORGANIZING COMMITTEE

Smt. MANJULA MUNIRATHINAM Chairperson	Shri R.S. MUNIRATHINAM Chairman	Shri. R. JOTHI NAIDU Director	Shri. R.M.KISHORE Vice-Chairman	Shri. YALAMANCHI PRADEEP Secretary
Dr. DURGADEVI PRADEEP Vice- Chairperson	Smt. SOWMIYA KISHORE Trustee	Shri.T.PITCHANDI IAS(Retd) Advisor	Dr.M.S.PALANICHAMY Advisor	Shri.V.MANOHARAN Advisor

Dr.S.ANITA,ASP,EEE
Ms.K.JEEVITHA,AP,ECE
Mr.J.BHARATH SINGH,AP,EIE
RMKEC ES-CoE Coordinators

Ms.M.SHAKUNTHALA,AP,ECE
Mr.S.SAYEEKUMAR,AP,EEE
Dr.N.VINI ANTONY GRACE,ASP,EIE
RMDEC ES-CoE Coordinators

Ms.GEETHA MAHALAKSHMI,AP,EEE
Mr.C.KARTHIKEYAN,AP,ECE
RMKCET ES-CoE Coordinators

R.M.K. GROUP OF INSTITUTIONS

R.S.M. NAGAR, KAVARAIPETTAI -601206, THIRUVALLUR, TAMILNADU

EMBEDDED SYSTEMS CoE

ONE HOUR WEBINAR SESSION ON

RASPBERRY PI

05-06-2020

TIME: 11 AM TO 12 PM

PARTICIPANTS: II & III YEAR ES CoE STUDENTS

EXPERT ON SESSION

Mr.RAVIVARMAN RAJENDRAN
FOUNDER
DREAMERINDIA INNOVATIONS

CO-ORDINATORS

Dr. S. ANITHA
ASSOCIATE PROFESSOR
EEE/RMKEC

Ms.M.SHAKUNTHALA
ASSISTANT PROFESSOR
ECE/RMDEC

Ms.GEETHA MAHALAKSHMI
ASSISTANT PROFESSOR
EEE/RMKCET

R.M.K. GROUP OF INSTITUTIONS

R.S.M. NAGAR , KAVARAIPETTAI-601206, GUMMIDIPOONDI TALUK , TIRUVALLUR DISTRICT , TAMILNADU,INDIA
APPROVED BY AICTE & AFFILIATED TO ANNA UNIVERSITY
ACCREDITED BY NBA & ACCREDITED BY NAAC
(AN ISO 9001:2015 CERTIFIED INSTITUTION)

EMBEDDED SYSTEMS CoE

ONE HOUR WEBINAR SESSION ON

EMBEDDED HARDWARE AND SOFTWARE IN AUTOMOTIVE DOMAIN

DATE : 11-06-2020
TIME : 4pm to 5pm

EXPERT ON SESSION

T.DEVISREE
DESIGN ENGINEER
KPIT

CO-ORDINATORS

Dr. S. ANITA
ASSOCIATE PROFESSOR
EEE/RMKEC

Ms.M.SHAKUNTHALA
ASSISTANT PROFESSOR
ECE/RMDEC

Ms.GEETHA MAHALAKSHMI
ASSISTANT PROFESSOR
EEE/RMKCET

R.M.K. GROUP OF INSTITUTIONS

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EMBEDDED SYSTEMS CoE

ONE HOUR WEBINAR SESSION ON

INDUSTRIAL IoT 4.0

DATE : 13-06-2020
TIME : 4pm to 5pm

PARTICIPANTS
II nd and III rd Yr Embedded Systems CoE Students

EXPERT ON SESSION

R.ABHISHEK
PROJECT ENGINEER(RMD EEE DEPARTMENT ALUMNUS)
WIPRO TECHNOLOGIES

CO-ORDINATORS

Dr.S.ANITA , ASP, EEE/RMKEC
Mr.J.BHARATH SINGH, AP, EIE/RMKEC
Ms.K.JEEVITHA,AP ,ECE/RMKEC

Ms.M.SHAKUNTHALA,AP, ECE/RMDEC
Mr.S.SAYEEKUMAR,AP,EEE/RMDEC

Ms.GEETHA MAHALAKSHMI, AP,EEE/RMKCET
Mr.C.KARTHIKEYAN , AP , ECE/RMKCET

WIPRO – EMBEDDED

NO. OF STUDENTS PLACED

2014-2018

S.No.	REG NO	NAME	NAME OF THE COMAPNY
1	111614106018	ASHWINI	LTI
2	111614106027	BARAKATH NISHA	KPIT
3	111614106057	HEMAVATHY	ATOS
4	111614106067	KAROLINE	HCL
5	111614106106	PANKAJ KUMAR	WIPRO EMBEDDED
6	111614106107	PARVATHY	KPIT
7	111614106117	PRAVEEN KUMAR	-
8	111614106126	RASHMI	LTI
9	111614106132	RUBAINA AFREEN	KPIT
10	111614106149	SRINIVASAN	VALEO

2015-2019

S.No.	REG NO	NAME	NAME OF THE COMAPNY
1	111615106113	PRIYA S	**HCL**
2	111615106088	MOHANESHWARI J	**RENAULT NISSAN**
3	111615106034	DEEPTHA.R	**CTS**
4	111615106125	ROHINI M	**CTS**
5	111615106121	S.RAMYABHARATHI	**CTS**
6	111615106092	V.S.MONISHA	**CTS**
7	111615106057	M.ISHWARIYA	**HIGHER STUDIES**
8	111615106002	ABHISHEK K V	**INFY**
9	111615106120	RAMYA M S	**HIGHER STUDIES**
10	111615106136	SHAMINI P	**NOKIA**
11	111615106114	P.PRIYANKA DEVI	-
12	111615106156	SURA PRAGNA	**FACE**
13	111615106117	RAJALAKSHMI R	**CTS**
14	111615106152	E.H.SUBHASHINI	**AMAZON**
15	111615106124	RAYAVARAM SAI DEEPIKA	-

2016-2020

S.No.	REGISTER NO.	NAME	NAME OF THE COMPANY
1	111616106172	VISHNU.C	**CODA GLOBAL**
2	111616106005	ABIRAMI .P. L	**WIPRO**
3	111616106038	GAYATHRI. D	**INFOSYS**
4	111616106008	AISHWARYASHRI. R	**CTS**
5	111616106157	TAMILARASI. S	**MPHASIS**
6	111616106034	EVANGELIN. S	**EY**
7	111616106067	MAALAVI. A.S	**CTS**
8	111616106133	SHAIK SADIK	-
9	111616106028	DEVIPRIYA. G	-
10	111616106043	HARSHINI. R.R	**CTS**
11	111616106109	PRIYA. S.G	**CTS**

2017-2021

S.NO	REGISTER NUMBER	NAME OF THE STUDENT	PLACED COMPANY
1.	111617106014	Barathiselvan K	CTS
2.	111617106021	Brindha L	CTS
3.	111617106029	Dinesh Raj N	CTS
4.	111617106033	Diyyala Praveen	-
5.	111617106042	Induja S	WIPRO
6.	111617106047	Kalaivani M R	CTS
7.	111617106066	Mahakamakshi J	HCL
8.	111616106102	Rahul R	CODA
9.	111616106103	Rajalakshme R	-
10.	111617106106	Rayavaram Sai Jithendra	TCS
11.	111616106112	Sakthi Priya M	-
12.	111617106116	Sankara Eshwari S	CTS
13.	111617106128	Srija K K	HCL
14.	111617106132	Srinitha S	-
15.	111617106168	Yogalakshmi C	TCS

2. TELECOM CENTRE OF EXCELLENCE

Coordinators

1. Dr. N. GANGATHARAN - Professor and Head - Dept of ECE
2. Ms. G. SANDHIYA- Assistant Professor - Dept of ECE

TELECOM - CENTRE OF EXCELLENCE

OBJECTIVE

- To provide the foundation for our students, to be successful in Telecom Engineering Services.
- To develop the student's skills required for planning and operations of Telecommunication infrastructure.
- To enhance the programming skills of the students towards the telecommunication application development and practice.
- To develop the skills required for the design, fabrication and measurementof telecommunication circuit and systems.
- To develop the concepts of professional practices, innovation and enterprise.
- To train students for the dynamic and rapidly changing market of telecomindustry.
- To give students the knowledge and skills necessary to participate as an effective team member or team leader in the development of large telecommunications and computer systems covering a broad range of engineering and scientific applications.
- To train the students to be a telecom industry readyprofessionals.

TELECOM CENTRE OF EXCELLENCE

The Center of Excellence – Telecom is only offered for our Electronics and Communication Engineering department in our R.M.K group of institutions.

The Telecom Centre of Excellence laboratory in our R.M.K College of Engineering and Technology was inaugurated on 16/02/2017, by

Shri.T.V.Vinod Kumar,

Vice President,

Wipro Technologies Ltd.,

TELECOM CENTRE OF EXCELLENCE

ASSOCIATED COMPANIES

The Telecom centre of excellence was associated with Wipro Ltd, Cognizant, Proadapt, W2Bi, TATA Elxsi, mBit Technologies, NEC Technologies andvarious companies.

TELECOM CENTRE OF EXCELLENCE

ADVISORY COMMITTEE MEMBERS

S.No	NAME OF THE MEMBER	DESIGNATION	NAME OF THE ORGANIZATION
1	Mr.SWAMINATHAN SEETHARAMAN	DMTS - Distinguished Member of Technical Staff	M/s. WIPRO LIMITED
2	Mr.S.GNANASAKTHI	DIRECTOR - OPERATIONAL EXCELLENCE	M/s. COGNIZANT
3	Mr.M.D.SENTHILNATHAN	TECHNICAL ARCHITECT	NEC TECHNOLOGIES INDIA PVT LTD
4	Dr.J.KLUTTO MILLETH	CHIEF TECHNOLOGIST	CENTRE OF EXCELLNCEIN WIRELESS TECHNOLOGY IIT MADRAS
5	Mr.RATNAKAR RAO	DIRECTOR OF ENGG IN COMMUNICATION R&D	SAMSUNG RESEARCHINDIA

BestPractice of CoE
10
£olla6orative rese»r‹h/
Consultancy/PotentialSt»ñup
9
Internship and Business Unit
Hiring
8
Ceñifications/Competiti0fi5/hâCkâth0fiS
7
Publications/Project Expo/Product
Development
6
Training Rollout Plan/Guest
Lectures/\¥orfshops
5
Identification of Focus Group
(Students)
4
Curriculum Development with Inputs from AdVi50f{
£omminee Members
3
Formation of IndustryAdvisory Committee
Members
2
Formation of Core Team Members
1
Identification ofTe‹hnologies

TELECOM CENTRE OF EXCELLENCE

ACTIVITIES

1. **Focus group - CoE Selection process**
2. **Technical Training**
3. **Programming Training**
4. **Guest lecture**
5. **Project Work**
6. **Paper Presentation**
7. **Online courses**
8. **Hands on training in open source simulator tools**
9. **Soft skill training**
10. **Internships & Recruitment**

TELECOM CENTRE OF EXCELLENCE

ACTIVITIES OF CENTRE OF EXCELLENCE

STUDENTS SELECTION PROCESS

INTRODUCTION ABOUT COE & ACTIVITIES TO SELECTED STUDENTS

TELECOM COE ACTIVITIES

Semester	Course 1	Course 2	Course 3
3rd	Netacad	Udemy	Netacad
	Networking Essentials	Python Programming For Beginners	Introduction to Packet Tracer
Mini Project – During Semester Holidays			
4th	Udemy	Udemy	Udemy
	Complete JAVA programming Language course	5G, 4G-LTE, 3G, 2G Cellular Mobile Communications-Wireless	Introduction to Wireshark-The Essential Beginners Guide
Mini Project – During Semester Holidays			
5th	Netacad	Netacad	External vendor
	CCNA R&S : Introduction to Networks	CCNA R&S : Routing & Switching Essentials	Hands on Training – Java Programming
Mini Project – During Semester Holidays			
6th	Udemy	NPTEL	Udemy
	Introduction to SDN and Openflow	Evolution of Air Interface towards 5G (Tentative)	The Telecom Revolution enabled by NFV and SDN

TELECOM CURRICULUM TRAINING

(CURRICULUM SUGGESTED BY ADVISORY COMMITTEE & INDUSTRY) –

GUEST LECTURE FOR STUDENTS IN TELECOM TOPICS

MOCK INTERVIEW

MINI PROJECT (HARDWARE OR SOFTWARE EDITION) – SEMESTER HOLIDAYS

RECRUITMENT & PROJECT / INTERNSHIP ORIENTATION FOR PLACED STUDENTS

THEORETICAL TRAINING CONTENT

TRAINING COURSE CONTENT

Introduction to Telecom Industry Communication Networks (Wired, Wireless, Broadband, Satellite, Optical Fiber) Eco System (Operator, Vendor, ITU, System Integrator, Software Service provider, etc)
Overview of Wireless Network What are Access Networks / RAN, What are Core / Backbone / Transport Networks Overview of 1G to 4G Technologies, Various Services offered on 1G, 2G, 3G and 4G Networks Difference between operations for Wire line and Wireless subscriber Circuit Switching and Packet Switching Fundamentals
GSM Network Architecture Architecture of GSM Network (PLMN) with Interfaces, Overview functioning of MS, BTS, BSC, MSC Introduction to Air Interface – Spectrum, Traffic & Signalling channels - Identities in GSM Network - Concepts of Mobility Management, Handoff, Radio Resource Management, Origination Call and Termination CallOverview - GPRS/EDGE Overview WCDMA / HSPA Overview HSDPA, HSUPA and HSPA+ Air Interface Introduction to LTE Network
Microwave communication Various Microwave Frequency bands, Various Channel Bandwidth and Modulation schemes Microwave system building blocks -Short , Medium and Long Haul Microwave Networks-Native IP Microwave Optical Communication - Optical fiber transmission technique and types of optical fibresOptical fiber network implementation - DWDM Network
BSS and OSS Overview Overview of OSS and BSS - eTOM Model - Importance of BSS and OSS, BSS Overview CRM Mediation, Billing and Rating, Interconnect and Roaming, Revenue Assurance and leakage, Fraud Management
Need for OSS and its role Role of OSS in Modern day N/W About ITIL, TM Forum and ITU -Introduction to EMS, NOC and GNOC, - NGOSS the new standard
Telecom Network Implementation O&M and Optimization Cellular Network Planning, Network Planning fundamentals and tools used, RAN Coverage and Capacity Planning Overview – Voice RAN Coverage and Capacity Planning Overview – Data Transmission network and Backbone Network Planning Core Network Planning, RF and LOS surveys
5G Overview 5G Objectives New applications; connected cars, low-power IOT, FWA, Gbps/latency requirements - 5G use cases and service scenarios; eMBB, URLLC, MMTC Rates, latencies , and other targets for 5G Spectrum for 5G; mmwave and the challenges - Key approaches for 5G in RAN and Core

TRAINING ROLL OUT PLAN

BATCHES	FIRST YEAR		SECOND YEAR		THIRD YEAR (PRE-FINAL)		FINAL YEAR	
	I SEM	II SEM	III SEM	IV SEM	V SEM	VI SEM	VII SEM	VIII SEM
CoE 2017-21 Batch			Selection Process	Telecom Phase I	Telecom Phase II & Project Idea Submission	Project Expo I	Placement	Internship Project Expo II
CoE 2018-22 Batch			Selection Process	Telecom Phase I	Telecom Phase II & Project Idea Submission	Project Expo I	Placement	Internship Project Expo II
CoE 2019-23 Batch				Selection Process& Telecom P hase 1 training	Telecom Phase II training & Project Idea Submission	Project Expo I	Placement	Internship Project Expo II

TELECOM TECHNICAL TRAINING FOR COE STUDENTS

THEORETICAL TELECOM TRAINING – INTERNAL FACULTY

TELECOM CENTRE OF EXCELLENCE

GUEST LECTURE SESSIONS

S.NO	DATE OF EVENT	NAME OF THE EVENT	NAME OF THE RESOURCE PERSON & ORGANIZATION	TARGET AUDIENCE
1	Day1 14/06/2021	Introduction to Telecom Industry Communication Networks (Wired, Wireless, Broadband, Satellite, Optical Fiber)	Ms.Akshya Durai Jr. Network engineer (Planning and design) TCS	II year (2019-2023)
	Day2 15/06/2021	Introduction to Telecom Industry Eco System (Operator, Vendor, ITU, System Integrator, Software Service provider, etc)	Ms.Archana.G M.S. in Telecommunication University of New South Wales Sydney, Australia	II year (2019-2023)
	Day3 17/06/2021	Overview of Wireless Network Overview of 1G to 4G Technologies Various Services offered on 1G, 2G, 3G and 4G Networks	Mr.Zakkir Hussain J Senior Cyber Security Engineer, Etisalat Digital Security.	II year (2019-2023)
	Day4 18/06/2021	Overview of Wireless Network Difference between operations for Wire line and Wireless subscriber. Circuit Switching and Packet Switching Fundamentals	Mr.Nirmal Kumar Network Security engineer TCS	II year (2019-2023)
	Day5 19/06/2021	Overview of Wireless Network What are Access Networks / RAN What are Core / Backbone /Transport Networks	Ms.Rajalakhmi Kamalakkannan Development Engineer Comcast India Engineering Center	II year (2019-2023)
2	Day1 17/05/2021	Introduction to Telecom Industry	Mr.Zakkir Hussain J Senior Cyber Security Engineer, Etisalat Digital Security.	III year (2018-2022)
	Day2 18/05/2021	Overview of Wireless Network and Cellular Network	Mr.Pawan Kumar Singh Senior Network Engineer CSS Corp	III year (2018-2022)
	Day3 19/05/2021	GSM Network Architecture	Mr.Sai Srinivas Ai/Ml Cyber Security Researcher at Breachlock Inc. Mr.Rudraraju Raman Kumar Ai/Ml Cyber Security Researcher at	III year (2018-2022)

			Breachlock Inc	
	Day4 20/05/2021	Identities in GSM Network& Termination Call Overview	Ms.Karthikala Functional Analyst in TCS	III year (2018-2022)
	Day5 21/05/2021	Introduction to LTE Network	Mr.Venkatachalam Annamalai Senior Software Engineer, BNP Paribas India Solutions Private Limited	III year (2018-2022)
3	04.05.2021	Webinar on"O-RAN And Its Architecture"	Mr.M.D. Senthilnathan Technical Architect M/s. NEC Technologies	III year (2018-2022) II year (2019-2023)
4	06.06.2020	Webinar on "Introduction to 802.1X Protocol and WIFI Security "	Ms. Rajalakshmi Kamala Kannan, Alumnus of RMKEC Dept of ECE Batch :2013-2017	II year (2018-2022) III year (2017-2021)
5	14.05.2020	Webinar on "Artificial Intelligence and Machine Learning in Telecom Industry "	Mr.M.D. Senthilnathan, Technical Architect M/s. NEC Technologies	II year (2018-2022) III year (2017-2021)
6	06.05.2020	Webinar on "Technology Trends Post Covid -19(5G Technology and Cloud based applications "	Mr.SATHIYA Senior Manager M/s. COGNIZANT	II year (2018-2022) III year (2017-2021)
7	22.02.2020	Guest lecture on "LTE (4G) Signalling Call Flows"	Mr.M.D. Senthilnathan Technical Architect M/s. NEC Technologies	III year (2017-2021)
8	20.02.2020	Guest Lecture on "Vision 2020 & Beyond"	Mr.SATHIYA Senior Manager M/s. COGNIZANT	II year (2018-2022) III year (2017-2021)
9	06.02.2020	Guest lecture on "Technology Trends In IT Industry"	Mr.Suresh.P , DMTS - Senior Member Mr.Senthil.D, Project Leader Mr.Renganathan.S, Technical Lead Ms.Hemalatha.R , Senior Project Engineer Ms.Supriya.G, Senior Project Engineer M/S. Wipro Ltd.,	II year (2018-2022) III year (2017-2021)

10	08.03.2019	Guest Lecture on "Evolution of NMS & Programmable Networks And Industry 4.0"	Mr. Elankumaran, Project lead Mr. Suresh , Senior Member DMTS Ms.K.H.Jyothsna , Senior project Engineer Ms.Sangeetha , Senior project Engineer Ms.Abdur Rahman, Senior project Engineer M/S. Wipro Ltd.,	II year (2017-2021) III year (2016-2020)
11	23.02.2019	Guest Lecture on "Emerging Trends In Information And Communication Technologies"	Mr.M.D. Senthilnathan Technical Architect M/s. NEC Technologies	II year (2017-2021) III year (2016-2020)
12	16.02.2019	Guest Lecture on "Digital Transformation In Telecommunications"	Mr.Sathiya Senior Manager M/s. COGNIZANT	II year (2017-2021) III year (2016-2020)
13	16.02.2019	Guest Lecture on "Digital Transformation In Telecommunications"	Mr.Sathiya Senior Manager M/s. COGNIZANT	II year (2017-2021) III year (2016-2020)
14	02.11.2018	Faculty Development Program on "Recent Trends In 5g Technologies"	Dr.Ratnakar Rao GENERAL MANAGER M/s. SAMSUNG	All dept faculty members
15	05.9.2018	Guest Lecture on "Opportunities In Telecom Industry"	Mr.B.Rajesh Kannan, Tech Lead Ms.U.Vaishnavi, Senior Test Engineer Mr.P.Santhakumar, Project Engineer M/S. Wipro Ltd.,	II year (2017-2021) III year (2016-2020)
16	10.8.2018	Seminar session in the topic of "Integrators Perspective On Telecom"	Ms.Sujata Menon Senior Director, Mr. Aravindan Ponnusamy, Principal Architect M/s. COGNIZANT	III year (2020 batch)
17	17.5.2018 - 19.5.2018	Telecom programming training in "Java Programming"	FACULTY MEMBERS OF RMK GROUP OF INSTITUTIONS	III year (2019 batch)
18	13.02.2018	Guest Lecture on "Recent Trends In Telecom"	Mr.Gnanasakthi M/s. COGNIZANT	II year (2016-2020) III year (2015-2019)

19	09.02.2018	Guest Lecture on "Introduction To The World Of Telecom"	Mr.Elankumaran, Project lead Mr.Gautam Arjun, Project Lead, Ms.Akshaya R S Mr.Bharani Dharan, M/S. Wipro Ltd.,	II year (2016-2020) III year (2015-2019)
20	10.08.2017	Project Orientation Programme	M/S. Wipro Ltd.,	II year (2016-2020) III year (2015-2019)
21	28.7.2017	Training program on "Introduction To The World Of Telecom &Datacom"	Mr.Joel, Project Manager Mr.Elankumaran, Project Manager M/S. Wipro Ltd.,	IV year (2014-2018)
22	12.06.2017-24.06.2017	Wipro - Placement Readiness Program	RMK Group of institutions Internal faculty members	III year (2014-2018)
23	08.02.2017-23.06.2017	Internship Program	M/S. Wipro Ltd.,	IV year (2013-2017)
24	16.02.2017	Inauguration Of Wipro Telecom Coe Lab And Special Guest Lecture On Opportunities In Telecom Domain	Shri.T.V. Vinod Kumar, Vice President M/S. Wipro Ltd.,	III year (2014-2018)
25	30.01.2017	Project Orientation Programme	Mr.Joel - Project Manager Mr.Elankumaran - Project Manager Ms.Srividhya - Project Manager M/S. Wipro Ltd.,	Wipro telecom recruited student (2013-2017)
26	21.06.2016	Faculty Development Program on "TELECOM"	Ms.Madahavi Ravanan, Senior Architect M/S. Wipro Ltd.,	All ECE faculty members

GUEST LECTURE ON

LTE (4G) SIGNALLING CALL FLOWS

PROJECT ORIENTATION PROGRAM

The overview of Wipro (internship) projects and pre-requisites was provided at RMK Engineering College on 30th Jan 2016 for the Wipro recruits by

Mr.Elankumaran, Project Manager, Wipro Technologies, Mr.Joel, Project Manager, Wipro Technologies, Ms.Srividhya, Project Manager, Wipro Technologies,

Wipro telecom COE orientation programme was provided at RMK Engineering College on 10th Aug 2017 for telecom COE by

Mr.Elankumaran, Project Manager, Wipro Technologies. Mr.Joel, Project Manager, Wipro Technologies

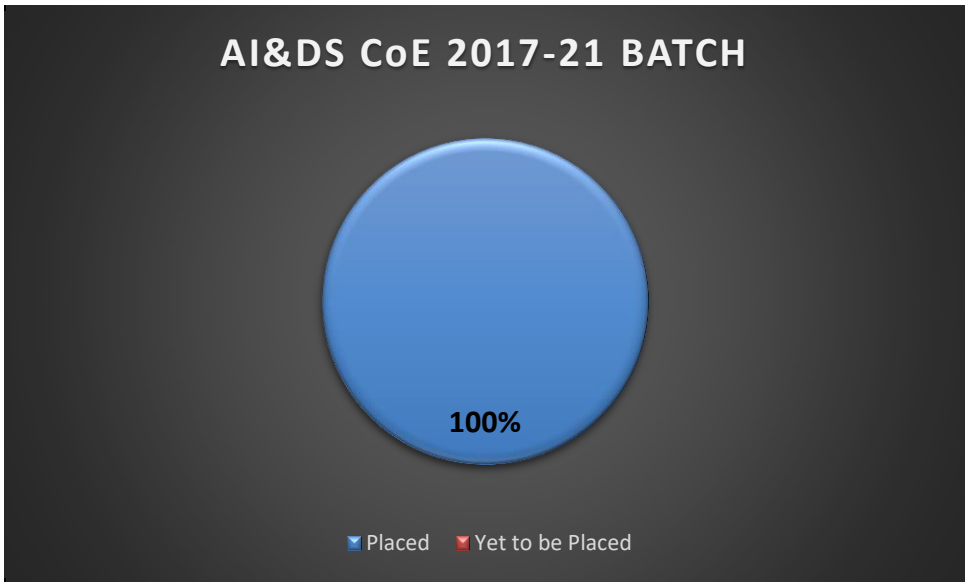
NO OF STUDENTS PLACED

RMKCET	NO OF STUDENTS REGISTERED	NO OF STUDENTS PLACED
2012-2016 BATCH	45	09
2013 – 2017 BATCH	60	12
2014-2018 BATCH	59	11
2015-2019 BATCH	37	26
2016-2020 BATCH	26	23
2017-2021 BATCH	20	19

3. ARTIFICIAL INTELLIGENCE AND DATA SCIENCE COE

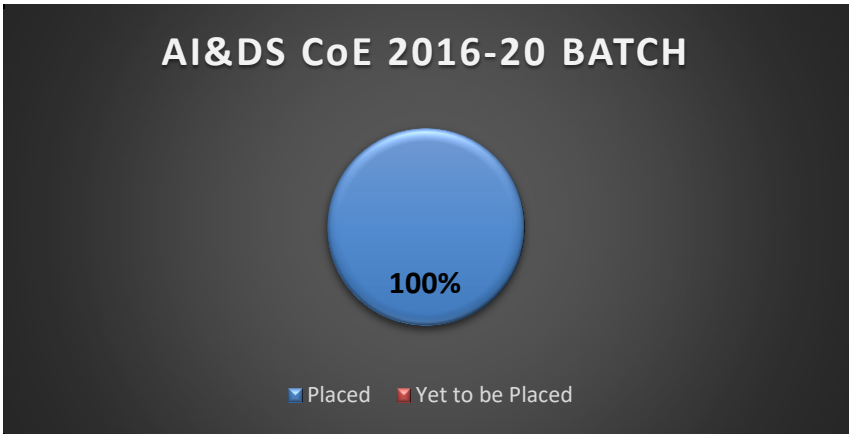
OUTCOME OF 2017-21 BATCH

S.No.	Register No	Full Name	COMPANY NAME
1	111617106007	AKASH S	SIFY
2	111617106039	HARINI J	WIPRO
3	111617106041	HEMCHANDHAR R	KAAR
4	111617106060	LAVANYA L	TCS
5	111617106065	MAVILLA MADHURI	HCL
6	111617106072	MONICA C	INFOSYS
7	111617106089	PRAMOD J	CODINGMART
8	111617106115	SANDHIYA K	COGNIZANT
9	111617106117	SANTHA KUMAR V	INFOSYS
10	111617106126	DEGA SREE LAKSHMI	TCS



OUTCOME OF 2016-20 BATCH

S.No.	Register No	Full Name	COMPANY NAME
1	111616106057	KIRAN R	CODA GLOBAL
2	111616106061	LAKSHMAN SIVAKUMAR D	CTS
3	111616106075	MOHAMED RIZWAN M E	CTS
4	111616106082	NARESH KUMAR K	Raptor Design
5	111616106089	NIVEDITHA G	MPHASIS
6	111616106107	PREM KUMAR M R	ECON
7	111616106137	SHARMILA S	WIPRO
8	111616106143	SRIDHAR S G	Cyber Security Works Pvt. Ltd



RPA-CoEActivities

(April-2020toMay-2021)

Webinar organized:

S.No	Date	Title	Participant CoEstudents
1.	27-4-2020	Introduction to RoboticsanditsApplication	IIIYear (2018-2022) Batch
2.	23-5-2020	Robotics ProcessAutomation-RPAOverview	IIIYear
3.	15-6-2020	OverviewonRPAandRPATools	IIIYear

OnlineTraining Course

- All the RPA CoEstudents completed the basic training courses from Automation Anywhere University.

  ✓ "Unleash Your Intelligent Bots: Develop Cognitive Bots Driven by AI& Machine Learning (IQ Bot)"

  ✓ "Storing and Manipulating Data: How to Automate Database-RelatedProcesses"

  ✓ "Working with PDF Documents: Methods to Automate PDF-RelatedProcesses"

  ✓ "Automating Excel Operations: Methods to Work with ExcelWorkbooks"

  ✓ "Hello A2019 Bot: Getting Started with Building Bots"

- Three Students from RMKCET completed ICT Academy of Recognition in the New India Learnathon 2020 during May – June 2020.

- One Student from RMKCET Udemy Course on"Learn Python: The Complete Python Programming Course"

2019-23Batch

- Robotic Process AutomationCoEroad showorganized on3/3/2021.
- Robotic Process AutomationCoEscreeningtestwere conductedon 9/3/21
- 62 students were shortlisted through this CoEtest
  - ✓ **RMKEC – 35 Students**
  - ✓ **RMDEC – 18 Students**
  - ✓ **RMKECT – 09 Students**

Six days RPA – CoE Training on RPA Tools:

Six days RPA-CoE Training on RPA Tools

SCHEDULE(17.5.21-22.5.21)

Day	Date	**Module**	**Resource person**	**Time***
Day 1	Monday 17.5.21	RPA-Introduction Ui path studio installation and Process flow	Dr.V.Sumitra Assoc Professor/Dept.of ECE R.M.K.Engineering College	4.30 -6.00 pm
Day 2	Tuesday 18.5.21	Hands on RPA Exercise using Ui path tool	Mr.SubramanyaBasaveswarSanka M.S. , RPA Lead Developer, CSL Behring L.L.C. , King of Prussia, PA, USA	4.30 -6.00 pm
Day 3	Wednesday 19.5.21	RPA using Python scripts	Mr.Siva Shankar PalrajM.E.(Ph.D) Senior Autonomy Engineer, Ai Drivers Ltd,Uxbridg, London	10.30-11.30 am
Day 4	Thursday 20.5.21	Process Automation with Digital Transformation using RPA Tools	Ms.Chaitanya K Control Design Engineer Machine tending and Foundary Robotics, DIFACTO Robotics and Automation, Bangalore.	4.30 -6.00pm
Day 5	Friday 21.5.21	RPA project demo and Resume preparation	Dr.V.Sumitra /ASP/ECE/RMKEC Mr.Balasubramani.S/AP/ECE/RMD	4.30 -6.00 pm
6	Saturday 22.5.21	Automation in IT Sector	Mr.SheikHalith, Staff Cloud Engineer,Oracle	4.30 -6.00 pm

After training, students are expected to complete their **Mini-Projects** and present before the Guest

from Industry after the completion of End-semester exams.

4. INTERNET OF THINGS CENTRE OF EXCELLENCE

IoTCoE

- Internet of Things CoE is established in 05.08.2019, through u**pgradation of Building Management System (BMS) to Internet of Things (IoT), supported by Johnson Controls India Pvt Ltd.**

VISION

- ✓ To prepare our students for a rapidly changing world by equipping them with the ability to analyze and solve engineering problems.
- ✓ To build up awareness among budding engineers and equip them with knowledge and skill in the field of Internet of Things.

Students are selected for IOT-CoE by conducting selection test andtraining will be provideafter end semester examinations. The Roll-out plan are designed with course module I & II and students are encouraged to participate in mini-project competitions and develop IoT projects in Building Automation Systems. The faculty members are provided with training facilities to impart the IoT knowledge sharing to the students /

IoT Course Content Topics :

- Getting started with IoT and Arduino
- Interfacing various sensors and bluetooth module
- Working with WiFi Module – ESP8266
- Tweeting data using NodeRed
- Mini Projects using Arduino and Thingspeak Cloud
- Getting started with Python and Raspberry Pi
- Interfacing Raspberry Pi with various sensors
- Working with AWS Cloud and Azure Cloud
- Introduction to Bolt IoT Module
- Mini Projects using Raspberry Pi and Thingspeak Cloud

IoTCOE students

BATCH	**DEPT**	**TOTAL STUDENTS**
2018	ECE + EEE	22 + 2 = 24
2019	ECE + EEE	16 + 1 = 17
TOTAL	**ECE + EEE**	**38 + 3 = 41**

List of Advisory Committee members

Johnson Controls India Ltd
Mr.AtulShitkande
Senior Manager

Siemens Ltd
Mr.Dilip Kumar Muni
Head –GECoC IN

L&T Technology Services
Mr.D. Ramesh Babu
Joint General Manager

VenbaTech Pvt Ltd
Ms. Bhanumathy
Managing Director

Q Pro Consulting Engineers
Mr. K.Balasubramanian
Managing Director

Instrumentation&Automation Ltd.
Mr.J.Vishnuvardhan,Chief
Managing Director, Trend

Activities

- **Train the trainer- Faculty development Program.**
- **Theory and Practical sessions on Internet of Things by CoE core team members and resource persons from renowned Industries.**
- **Guest lectures by expert team members**
- **Students Projects and internships.**
- **Wipro -Talentnext -FutureSkills program**

Outcomes

- **Development of Projects by the students and demonstration to industry experts**
- **Participating in Corporate Contests and Placement process.**

Sem	ROLL OUT PLAN (Modules)	No of Days
03	**Internet of Things – Module I** • **Getting started with IoT and Arduino** • **Interfacing various sensors and bluetooth module** • **Working with WiFi Module – ESP8266** • **Tweeting data using NodeRed** • **Mini Projects using Arduino and Thingspeak Cloud**	**5**

04	**Internet of Things- Module II** • **Getting started with Python and Raspberry Pi** • **Interfacing Raspberry Pi with various sensors** • **Working with AWS Cloud and Azure Cloud** • **Introduction to Bolt IoT Module** • **Mini Projects using Raspberry Pi and Thingspeak Cloud**	**5**
05	**JCI Enrich Program** • **Introduction to Building Automation** • **HVAC** • **AHU** • **Terminal units** • **Chillers** • **Boilers**	**5**
06	**Online Assessment Test conducted by M/S Johnson Controls**	**1 Selection test and 3 JCI Enrichment Tests**

List of Activities Organized

S. No	Date	COE Activity	Resource Person
1	02.05.2020	Webinar on "Role of Data Analytics in IoT"	Mr. K. A. Thangamurugan Director, Five House Innovative Solutions Pvt. Ltd
2	20.05.2020	Webinar on "IoT its Applications in Automobiles"	Mrs. Jayashree Logesh Capital One Financial Services,USA
3	13.06.2020	Webinar on "Recent innovations in IoT "	Ms. Malaika Afra Taj Research Intern National University of Singapore
4	18.05.2021	Webinar on "Gateway to Future on Internet of Things".	Mr. S. Balaji. Technical Head Oneyes Technologies
5	19.05.2021	Guest Lecture on "Internet of Things (IoT) in Medical Devices."	Mr. Raghavendra, Director, Cognizant.

Training Activities conducted:

Third Year (2018-2022 Batch) :

- Module 1 from 11.05.2021 to 15.05.2021 (Afternoon Session) and
- ModuleII from 07.06.2021 to 12.06.2021 (Forenoon Session)

Second Year (2019-2023 Batch) :

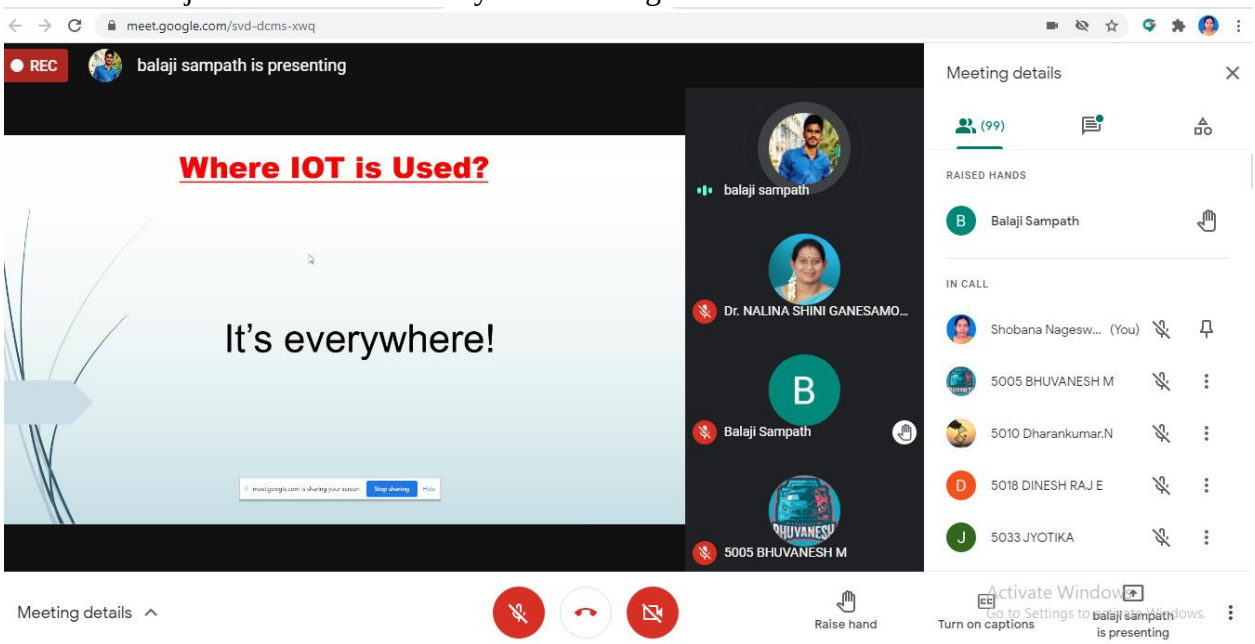
- Module 1 from 07.06.2021 to 11.06.2021 (Afternoon Session)

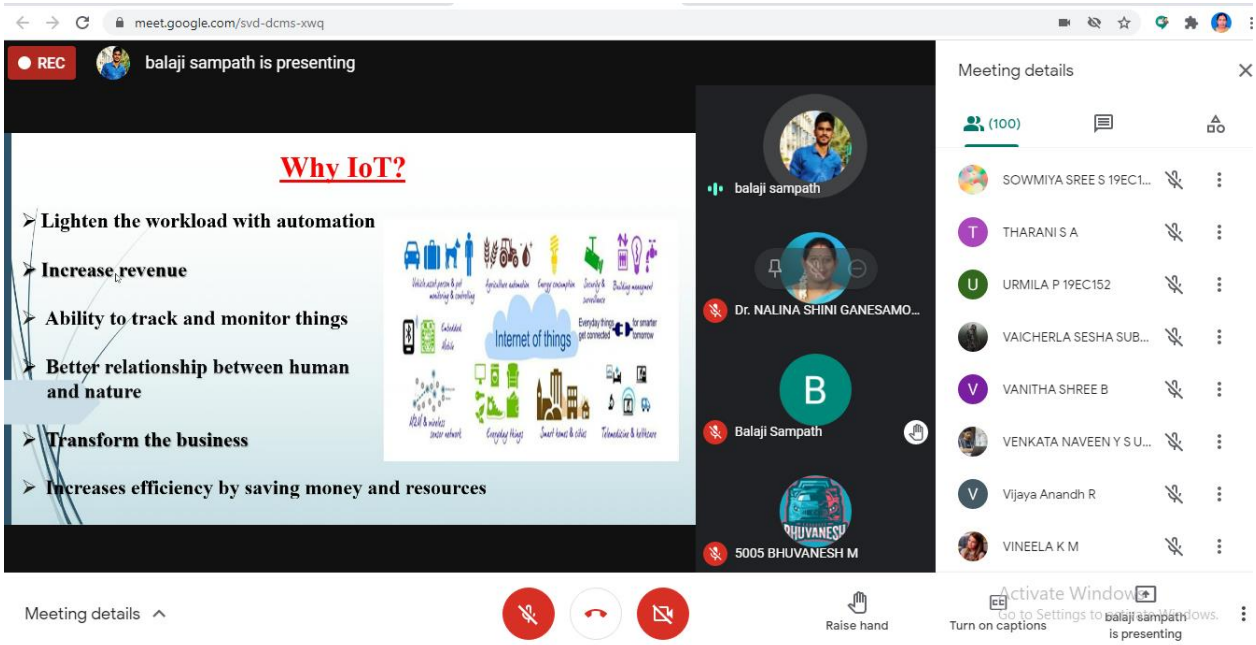
Course conducted thru On-line (Module I & II) Total hours = 10+10 hrs = 20 hrs

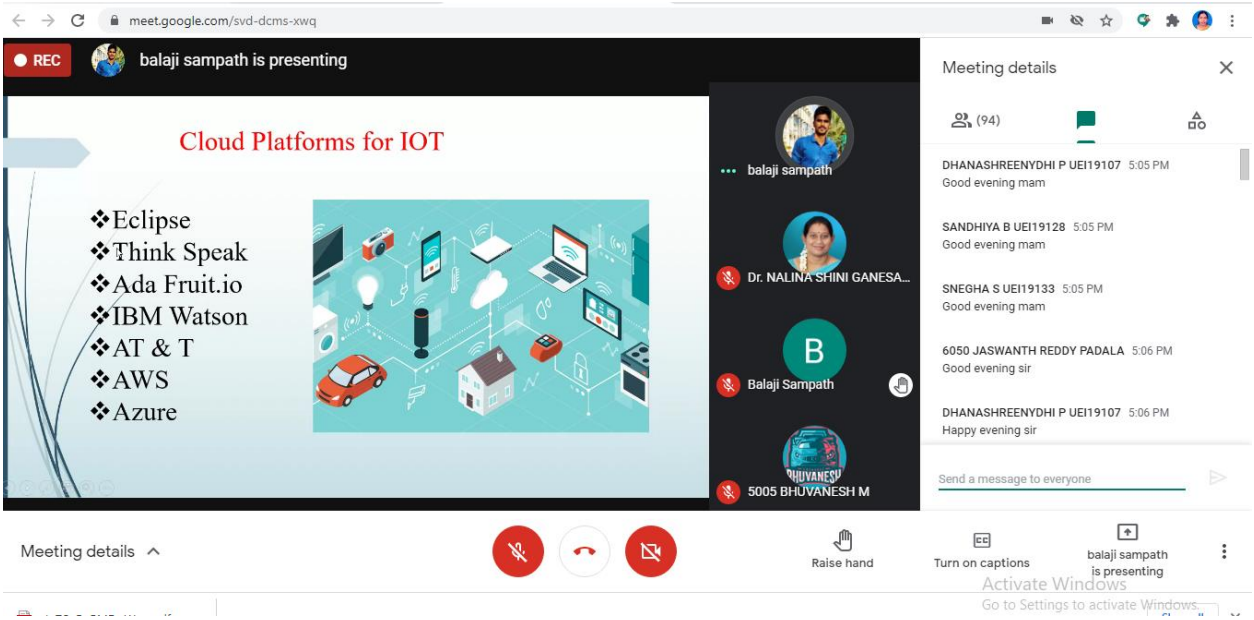
Day	Module – 1 Topics
Day 1	Getting started with IoT and Arduino -Working with Sensors in Tinkercad
Day 2	Hardware Interfacing: Various sensor interfacing with Arduino
Day 3	Monitoring sensor data in Thingspeak cloud
Day 4	Monitoring sensor data in Cayenne cloud
Day 5	Blynk App and RemoteXY App

Day	Module-II
Day 1	Introduction to BMS, HVAC (Air Side)
Day 2	Comfort Parameters and HVAC sensors
Day 3	Basic Instrumentation and Process Control, Basic Electrical and Electronics
Day 4	HVAC Basic Concepts (Terminal Units)
Day 5	Chillers and Boilers
Day 6	Security Engineering and Intrusion Systems, Fire Engineering

DATE & TIME: 18.05.2021 @ 5 pm
Target Audience: II Year & III yr IoT CoE Students
Speaker : Mr. S. Balaji Technical Head Oneyes Technologies







IoT CoE - Phase-2 Training will be conducted for Third Year (2018-2022 Batch) IoT CoE Students as per the following schedule.

Date : 07.06.2021 to 12.06.2021

Time : 10.00 A.M to 12.00 P.M

RMKCET-26 students

Phase 2 Training will be Core Training recommended by M/S Johnson Controls India Pvt Ltd

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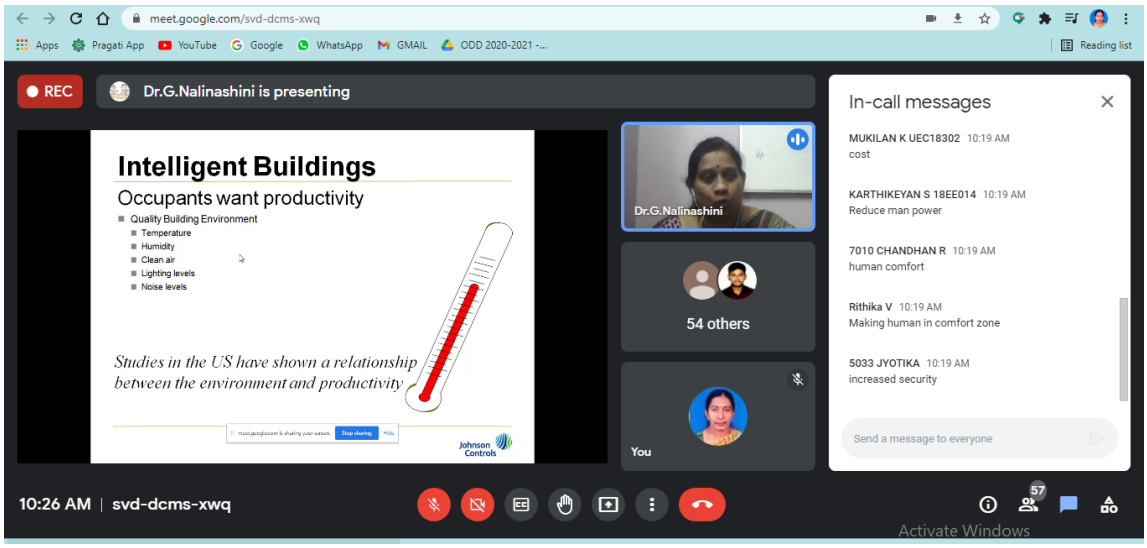

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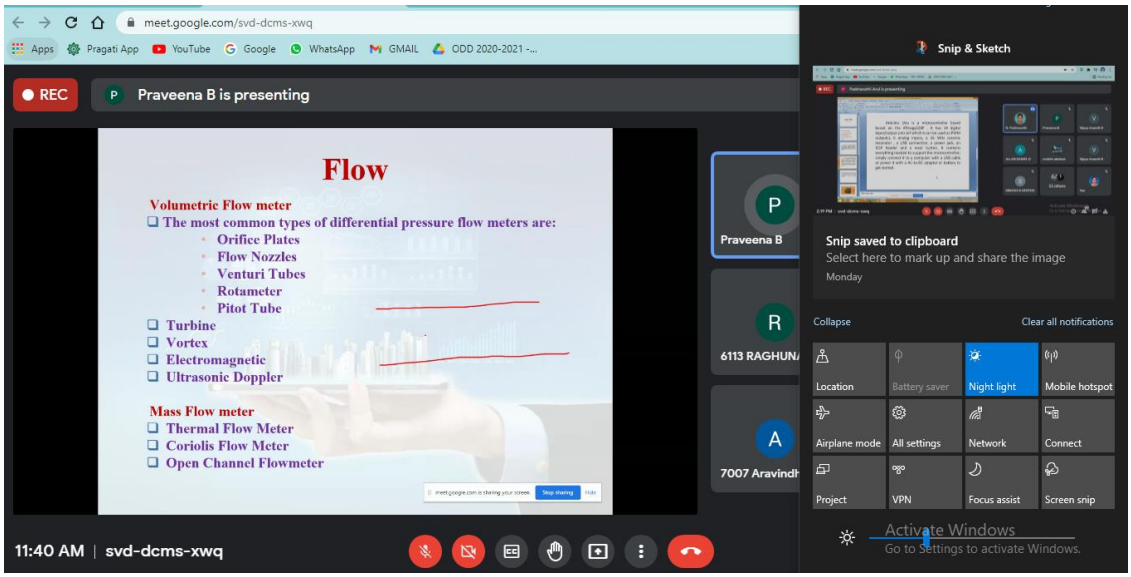
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REC
Praveena B is presenting
Flow
Volumetric Flow meter
The most common types of differential pressure flow meters are:
Orifice Plates
Flow Nozzles
Venturi Tubes
Rotameter
Pitot Tube
Turbine
Vortex
Electromagnetic
Ultrasonic Doppler
Mass Flow meter
Thermal Flow Meter
Coriolis Flow Meter
Open Channel Flowmeter
Praveena B
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7007 Aravindh
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Snip saved to clipboard
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Monday
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Clear all notifications
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Battery saver
Night light
Mobile hotspot
Airplane mode
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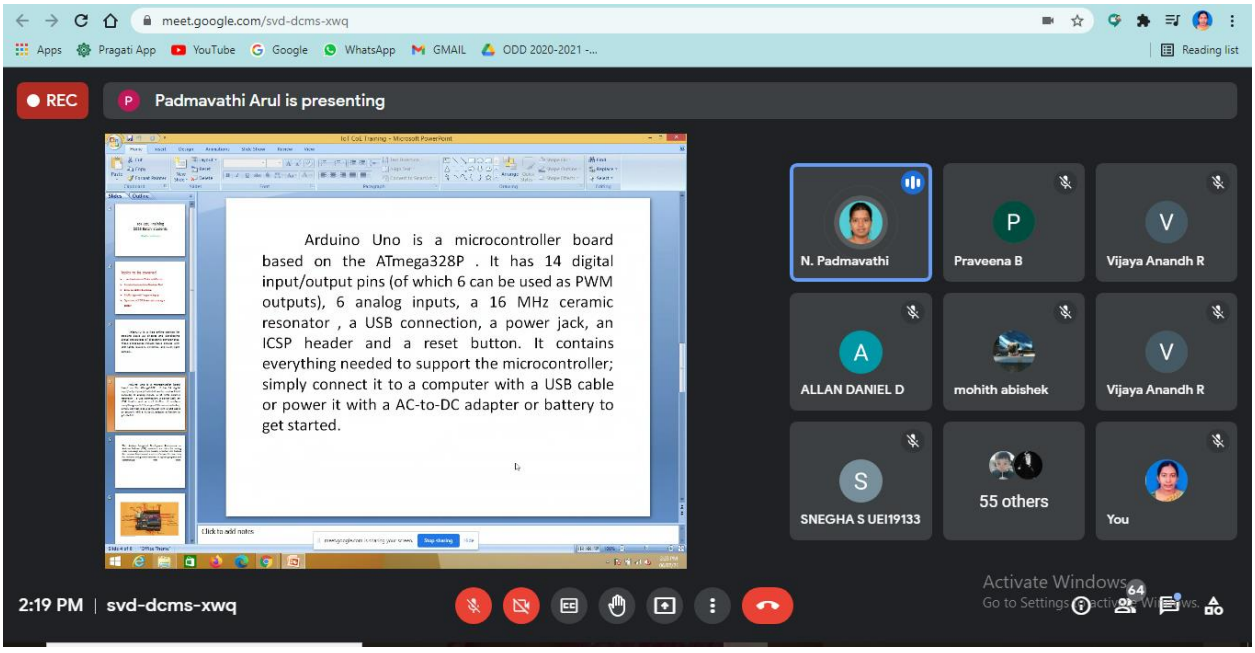
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Padmavathi Arul is presenting
Arduino Uno is a microcontroller board based on the ATmega328P . It has 14 digital input/output pins (of which 6 can be used as PWM outputs), 6 analog inputs, a 16 MHz ceramic resonator , a USB connection, a power jack, an ICSP header and a reset button. It contains everything needed to support the microcontroller; simply connect it to a computer with a USB cable or power it with a AC-to-DC adapter or battery to get started.
N. Padmavathi
Praveena B
Vijaya Anandh R
ALLAN DANIEL D
mohith abishek
Vijaya Anandh R
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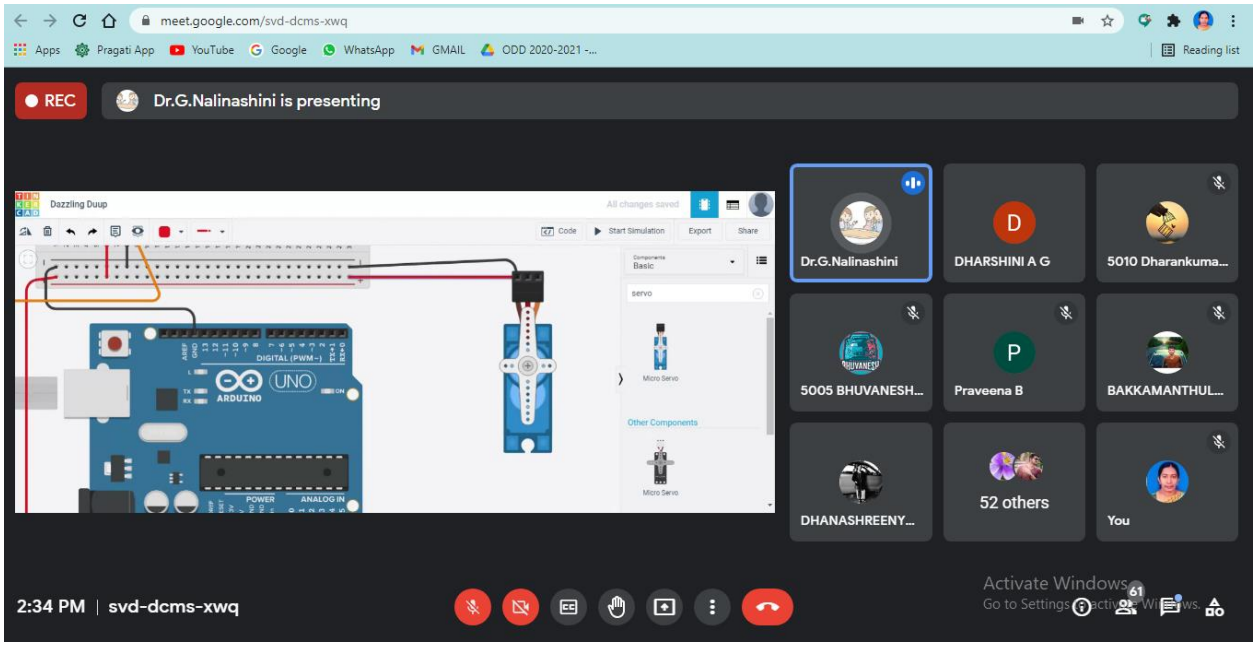
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Dr.G.Nalinashini
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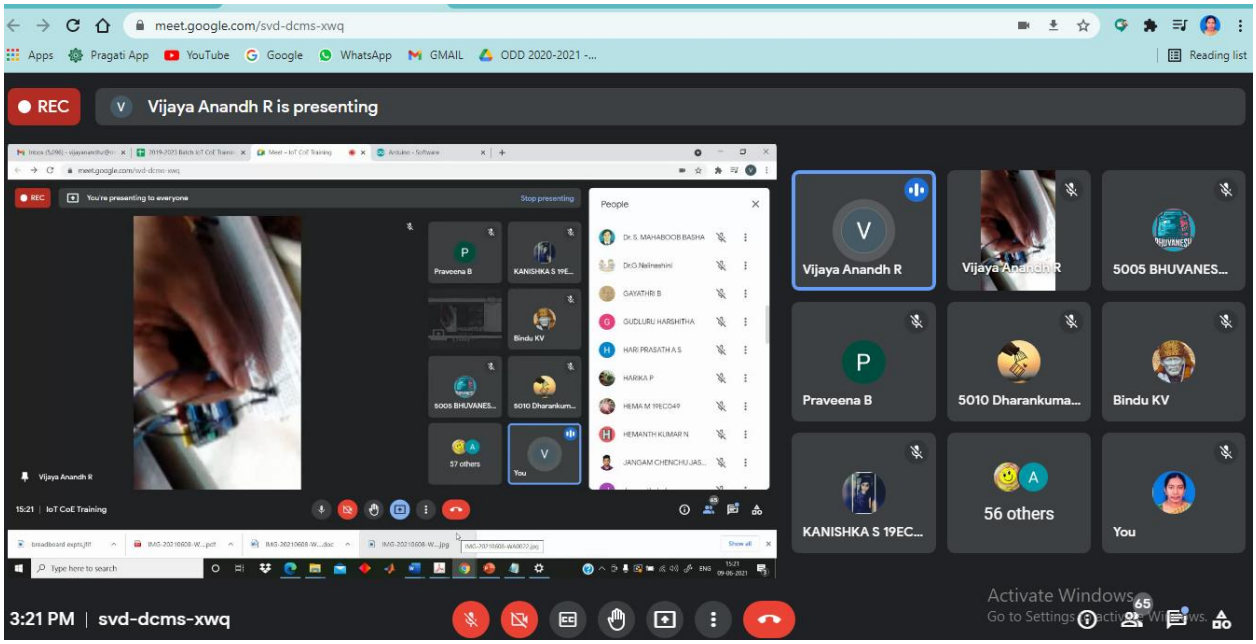
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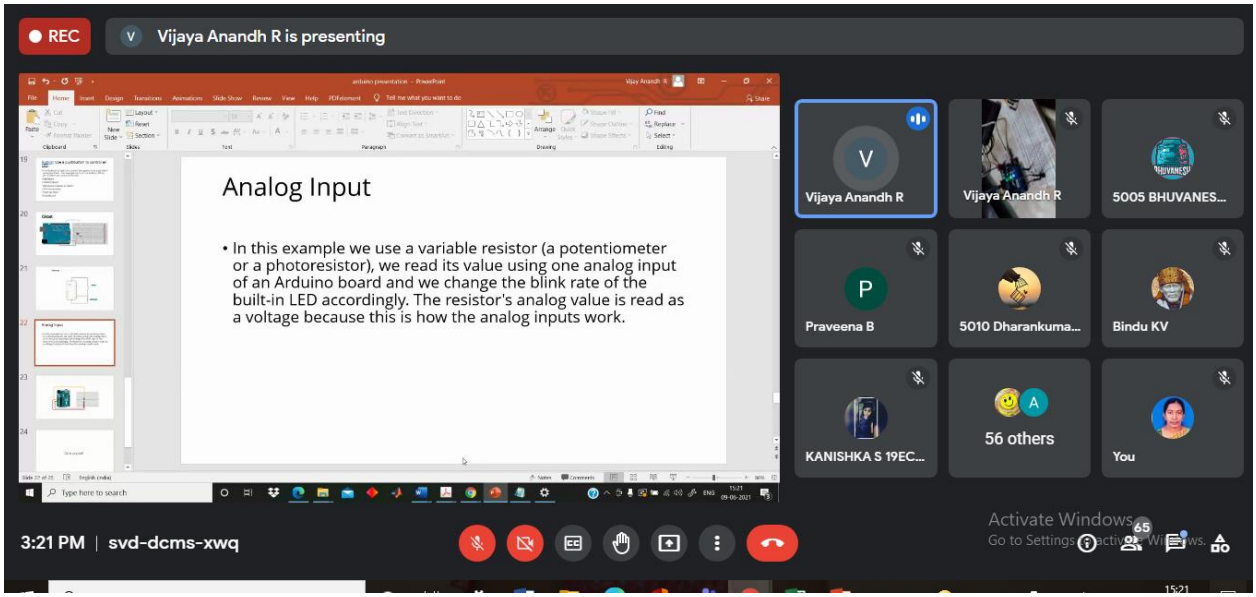
REC
Vijaya Anandh R is presenting
Analog Input
• In this example we use a variable resistor (a potentiometer or a photoresistor), we read its value using one analog input of an Arduino board and we change the blink rate of the built-in LED accordingly. The resistor's analog value is read as a voltage because this is how the analog inputs work.
Vijaya Anandh R
Vijaya Anandh R
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5010 Dharankuma...
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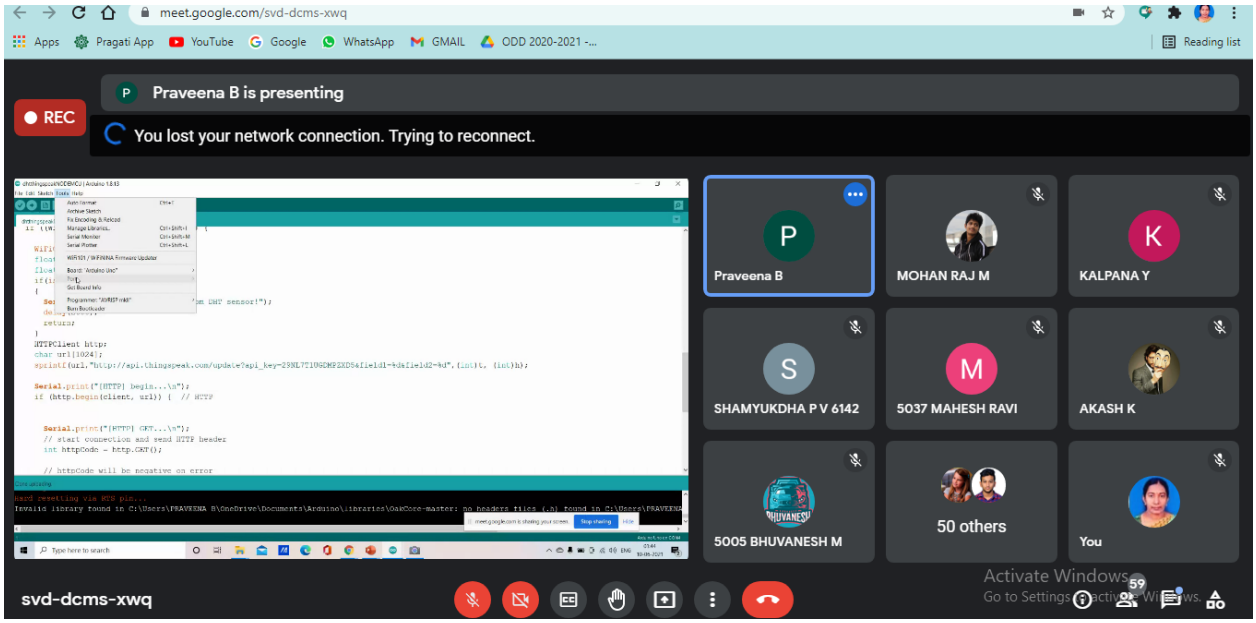
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Praveena B
MOHAN RAJ M
KALPANA Y
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5037 MAHESH RAVI
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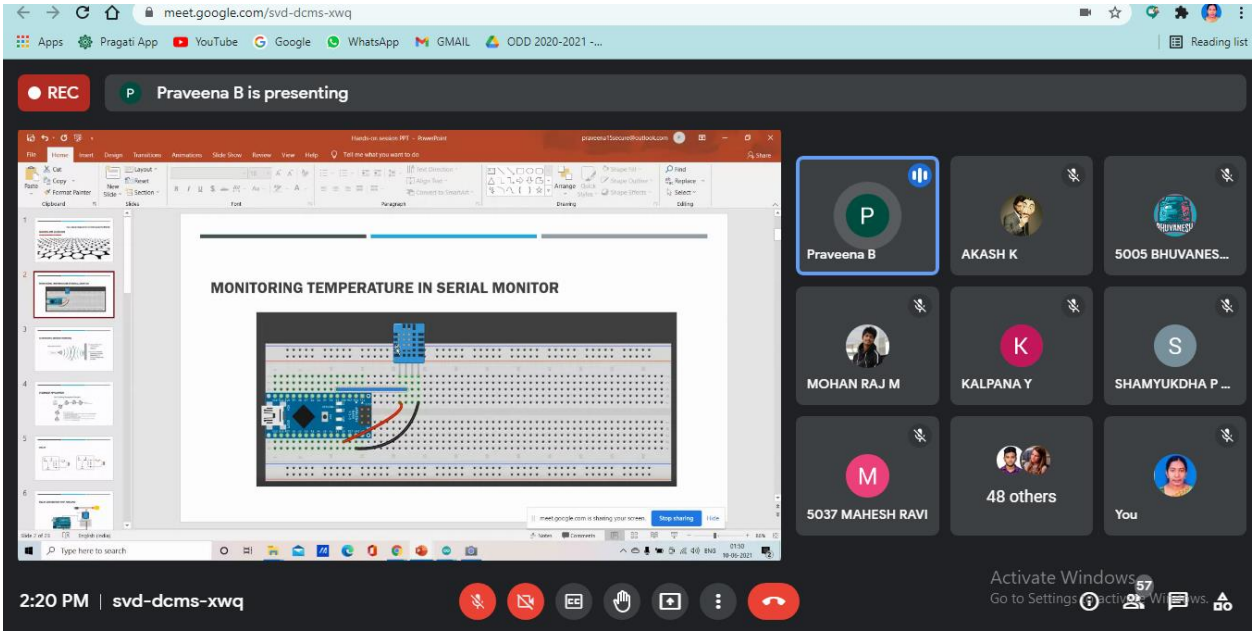
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Praveena B is presenting
MONITORING TEMPERATURE IN SERIAL MONITOR
Praveena B
AKASH K
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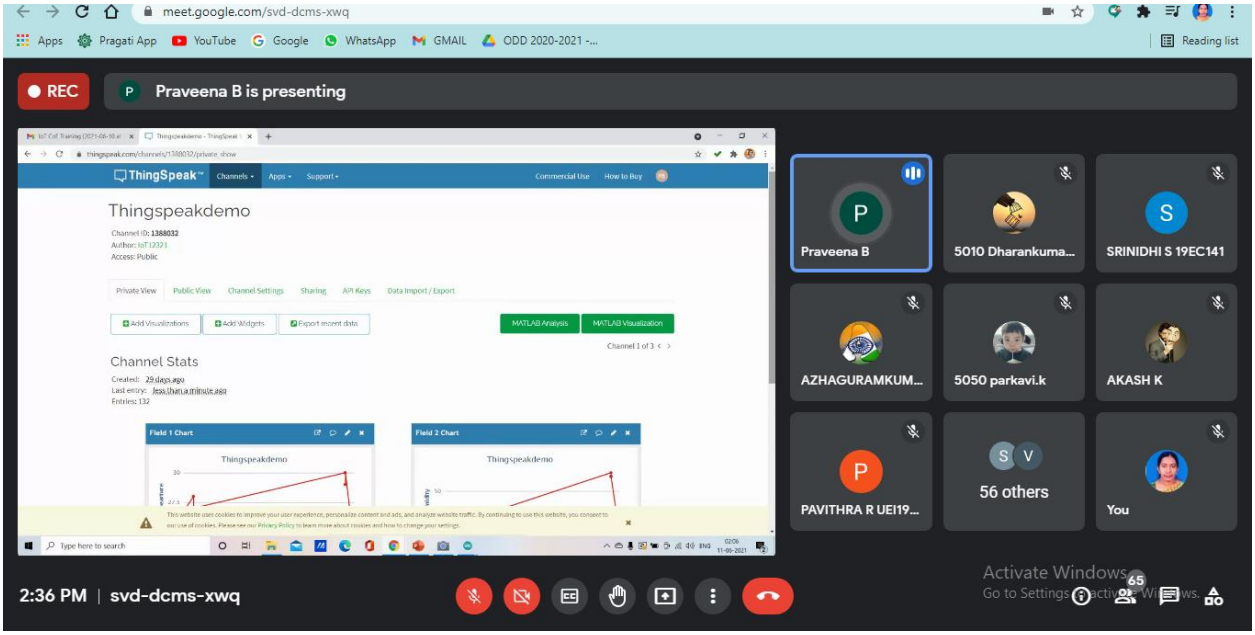
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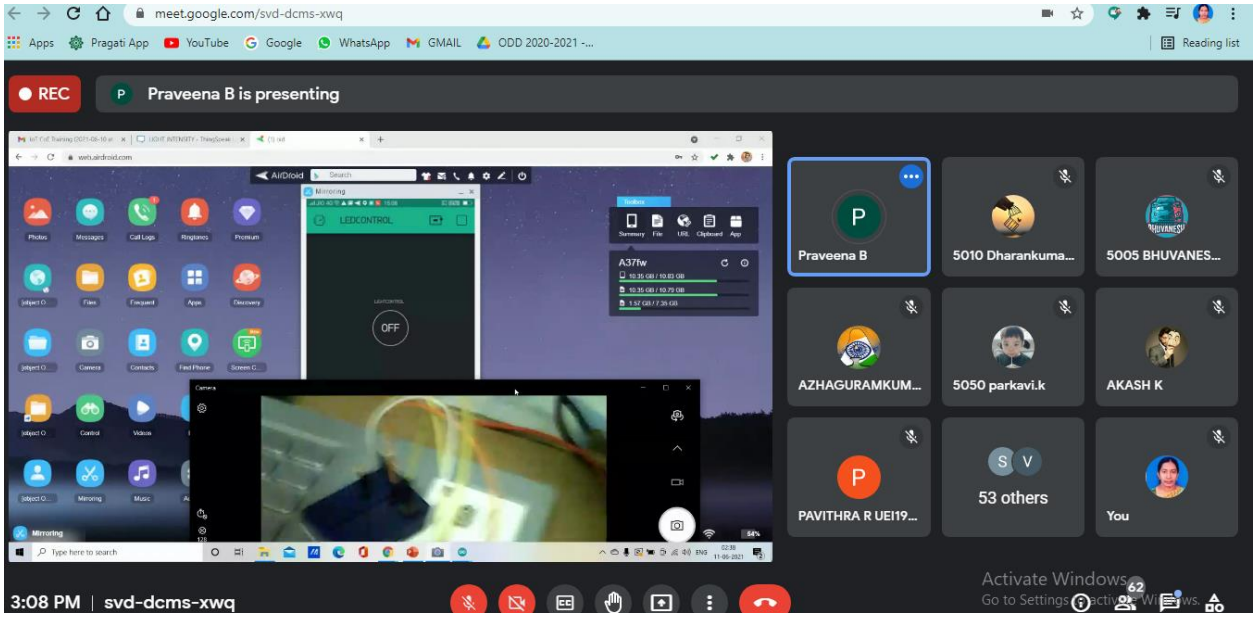
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5. AUTOMOTIVE ELECTRONICS CENTRE OF EXCELLENCE

Head of the department : **Dr. N. Gangatharan**
Faculty in charge [ECE] : **Mr. S. Jai Ganesh**

ABOUT CENTRE OF EXCELLENCE:

RMKCET has a dedicated center for excellence in Automotive Electronics to mold the students in the automotive electronics domain. We have strong relationship with the industries in framing the syllabus and drafting the training content so as to make the students of RMKCET industry ready soon after they graduate. As on date the center of excellence is associated with the industry leaders such as KPIT and BOSCH. In association with such industry leaders the students will soil their hands in the field of automotive electronics with industry specified syllabus. Students will be trained on different verticals.

KPIT offers the flagship training **PROGRAM FOR ACADEMIC COLLOBORATION AND ENGAGEMENT (**PACE) for the students of RMKCET recruited during their pre final year itself. This training is one of its kind offered by KPIT to engage the young and vibrant engineers pan India. This training will enable the students to get trained on several aspects such as C and Embedded Systems, C++ and OOPS, MATLAB Simulink and Model Based Design. Students undergoing this training will be taught all the relevant concepts and they will be evaluated on par with industry standards.

RMKCET also shares the dedicated Joint Certification Centre Infrastructure established in association with BOSCH at RMK Engineering College premises. Through this facility students stands a change to engage themselves in industry-oriented training programs offered by BOSCH. This state-of-the-art training infrastructure worth approximately Rupees twenty-five lakhs is wide spread across 1500 Square feet with ample amount of space allocated for workshop. Students literally operate the same equipment's as similar to the ones present in the current automotive industries. Students will be trained on 3 modules such as **Automotive Electrical Systems in Starter and Alternator**– (AETB 03) which will help the students to understand the working of auto electrical systems in vehicles and deals with the working principle of starter motor and alternator, testing of starter and alternator on test bench and Alternator & Starter Motor - construction, working principle, charging & testing using AETB. Second, **Vehicle Diagnostics** (KTS 5xx) is to understand the automotive vehicle diagnosis using KTS 5xx and deals with Diesel and gasoline engine diagnosis on vehicles using KTS 5xx and the practical operations in vehicle. Finally, **Measurement and Testing of Sensors and Actuators** module is to understand how to test and measure the sensors and actuators in vehicles and deals with the usage of multi-channel oscilloscope for synchronized signals functions testing and working principles of each sensor, actuators in an engine. All these three modules are 90% hands-on oriented training and on successful completion students would gain a certificate from RMK as well as BOSCH.

Department of EEE & ECE signing MoU with KPIT Technologies Ltd. on 30.08.2016

IDENTIFIED FACULTY COORDINATORS		
Name of the Coordinator	**Institution**	**Department**
Nageswari.D(SPoC)	**R M K C E T**	**EEE**
Jai Ganesh S	**R M K C E T**	**ECE**

ADVISORY COMMITTEE MEMBERS

1. **Tracy Austina.Z,**

   Principal Educator, Education & Competency Development (ECoDe),

   KPIT Technologies Limited, Pune

2. **Mr. H.Lalith Krishnan,**

   Software Engineer/Developer of Embedded Applications,

   WABCO India Limited, Chennai

3. **Mr.Ganesh Jayaram,**

   R&D I/CEE - Electrical & Electronics Department,

   Mercedes-Benz Research and Development India Private Limited,Bangalore

4. **Mr. Karthik Krishnan,**

Deputy Manager,

Maruti Suzuki India Limited

5. Mr.KarthikRajapaul,

Deputy Manager,Human resources,

HRL,Training and Development,RBEI.

6. Mr.A.Jegan,

Automotive Electronics Consultant,

Former KPIT Senior Educator.

7. Mr.Kiran G Nair,

Head, Training Division,

Robert Bosch Limited

8. Mr.D.Vishnumoorthy,

Associate Software Engineer,

Robert Bosch Engineering and Business Solutions (RBEI) Private Limited, Coimbatore

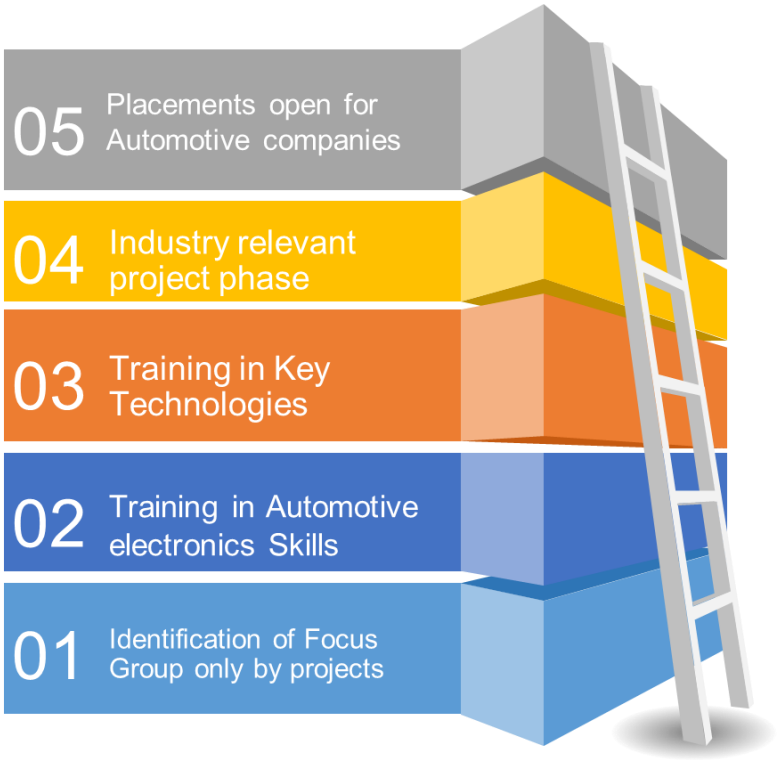
9. Mr.Ripunjay Singh,

Training Officer,

National Institute of Electronics and Information Technology (NIELIT), Government of India

JOINT CERTIFICATION CENTRE WITH BOSCH

STRATEGY FOR AUTOMOTIVE ELECTRONICS TRAINING



TRAINING ROLLOUT PLAN

FIRST YEAR	**SEM 1**	Road Show
	SEM 2	Python programming-in Academics Mandatory in Certification for coding in C Programming
SECOND YEAR	**SEM 3**	Students Selection Process based on C or Python Programming Skills C Programming required for Automotive Electronics
	SEM 4	BOSCH Training & Embedded System Design
THIRD YEAR	**SEM 5**	Vehicle Diagnostics & Project Expo I (Automotive specific)
	SEM 6	Training and mock interview
FINAL YEAR	**SEM 7**	Placement & Final year project in Automotive Domain
	SEM 8	Internships and internal trainings after placement

PLACEMENT STATISTICS

S.NO	Batch	No. of Students Enrolled	No. of Students Placed
1	2015 – 2019	11	8
2	2016 – 2020	11	10
3	2017 – 2021	14	10
4	2018 - 2022	08	ONGOING

ACTIVITIES FOR THE ACADEMIC YEAR 2016-2017

S.No	Date	COE Activity	Target Student
1.	28.12.2016	Inauguration of KPIT PACE training students and completed the Unit –I of PACE syllabus	IV year placed students & Interested Non-placed students
2.	24.01.2017	Completed Unit – II syllabus of PACE training	IV year placed students & Interested Non-placed students
3.	17.02.2017 to 19.02.2017	Completion of Unit – III & Unit - IV syllabus of PACE training along with Basics of 'C' programming	IV year placed students & Interested Non-placed students
4.	21.02.2017	Conducted First Internal Assessment test for PACE training students	IV year placed students & Interested Non-placed students
5.	24.02.2017	Subject Matter Expert (SME Connect) program with KPIT Team members	IV year placed students & Interested Non-placed students
6.	04.03.2017 & 06.03.2017	Training program on communication skills and Completion of Unit - V syllabus	IV year placed students &Interested Non-placed students
7.	16.03.2017 & 18.03.2017	Conducted MATLAB session for PACE training students (Hands on practice)	IV year placed students &Interested Non-placed students
8.	25.03.2017	Conducted AE-COE selection test for the batch 2014-2018	III year
9.	11.04.2017	First day Orientation program for AE-COE selected students	III Year
10.	17.05.2017	Conducted Model exam and MCQ test for PACE training students	IV year placed students &Interested Non-placed students

ACTIVITIES FOR THE ACADEMIC YEAR 2017-2018

S.No	Date	Name of the Training Program	Name Training Academy	Target Student
1.	09.06.2017	Final PACE Exam conducted by KPIT team For PACE training students	KPIT Technologies	IV year students (2013 Batch)
2.	18.07.2017	KPIT PACE results declared for 2013 batch students and one student got selected from RMKCET	KPIT Technologies	IV year students (2013 Batch)
3.	27.07.2017	KPIT PACE Re-assessment for certain students at RMK	KPIT Technologies	IV year students (2013 Batch)
4.	12.08.2017	Conducted AE-COE selection test for the batch 2015-2019	RMKCET - Coordinators	III Year Students (2015 batch)
5.	06.09.2017	KPIT online test for 2014 batch	KPIT Technologies	IV year students (2014 Batch)
6.	11.09.2017	KPIT HR interview for 2014 batch - interview process	KPIT Technologies	IV year students (2014 Batch)
7.	19.08.2017	AE-COE – MINI project display contest	RMKCET - Coordinators	IV year students (2014 Batch)
8.	28.09.2017	Conducted AE-COE selection test for the batch 2016-2020	RMKCET - Coordinators	II Year Students (2016 batch)
9.	02.12.2017	First day orientation program for AE-COE selected students of the batch 2015-2019	Faculty members of RMK Group of Institutions	III Year Students (2015 batch)
10.	28.12.2017 to 30.12.2017	Honing C language skills	Faculty members of RMK Group of Institutions	II Year Students (2016 batch)
11.	04.01.2018 to 06.01.2018	Honing C language skills	Faculty members of RMK Group of Institutions	III Year Students (2015 batch)
12.	24.01.2018	Guest lecture on “Technology trends in Automotive industry”	Mr. Lalith Krishnan, Software Engineer, WABCO India Ltd.	II Year Students (2016 batch) & III Year Students (2015 batch)

13.	02.02.2018	Web-ex meeting held for KPIT placed students	KPIT Technologies	IV year students (2014 Batch)
14.	24.02.2018	Guest lecture on "VLSI design flow of a practical Chip in Automotive ECU"	Mr. Vijaya Manohar N, Staff Engineer, QUALCOMM India Pvt. Ltd.	II Year Students (2016 batch) & III Year Students (2015 batch)
15.	02.03.2018	Guest Lecture on " Autotronics - Roll of Electronics in Automotive"	Mr. Karthik Krishnan, All India Manager, Bangalore Training Center, BOSCH Ltd & Mr. K. Arvind, Regional Manager, South India Trainer, BOSCH Ltd.	II Year Students (2016 batch) & III Year Students (2015 batch)
16.	24.05.2018 to 26.05.2018	Training on "Automation using Embedded C"	Faculty members of RMK Group of Institutions	III Year Students (2015 batch)

ACTIVITIES FOR THE ACADEMIC YEAR 2018-2019

S. No	Date	COE Activity	Year (II year/III year/IV year)
1.	26.06.2018	WebEx meeting by M/s. KPIT Technologies Ltd.	2019 Graduates' Hiring – RMK Group - KPIT Connect Regarding KPIT placement Drive
2.	07.07.2018	"C Programming Assessment and Technical MOCK interview"	IV year
3.	09.07.2018	Road Show – PPT presentation regarding AE-COE	II Year
4.	11.07.2018	AE-COE – MINI project display contest	IV year
5.	14.07.2018	AE-COE – Selection test conducted by RMK Group of Institutions	II Year
6.	16.07.2018	Online test conducted by KPIT Technologies for placement selection for the batch 2019	IV year
7.	19.07.2018	Second Chance for AE-COE Online selection test conducted by RMK Group of Institutions	II Year
8.	19.07.2018 to 20.07.2018	C training programs for placement preparation	IV year

9.	24.07.2018	KPIT Placement Drive – Offline test and Technical Interview	IV year
10.	24.07.2018	KPIT – pre placement talk	II/III yr (AE-COE students) & IV year – Placement selected students
11.	11.08.2018	Guest Lecture on " Overview on Autotronics – Advanced and Future Development of Vehicles" by Mr. Ganesh Jayaram R&D, I/CEE, Mercedes Benz Research and Development India Pvt. Ltd.	II/III yr (AE-COE students) & IV year – Yet to be placed students
12.	22.09.2018	AE-COE – MINI project display contest	III Year
13.	19.11.2018 to 29.11.2018	**C Programming For Automotive Electronics"** training for **10 Days** was conducted by **NIELIT** Phase – I	II year
14.	30.11.2018 to 05.12.2018	**Embedded System Design using ARM Cortex M4 "** training for **10 Days** was conducted by **NIELIT**	III year
15.	02.01.2019 to 03.01.2019	**C Programming For Automotive Electronics"** training for **10 Days** was conducted by **NIELIT** Phase – I	II year
16.	04.01.2019	Special Guest Lecture on " Basics of Automotive and Latest Trends in Automotive Electronics" by Mr. Karthik Krishnan, Deputy manager Maruti Suzuki India Ltd	II & III year – AE-COE students
17.	07.01.2019 to 11.01.2019	**Embedded System Design using ARM Cortex M4 "** training for **10 Days** was conducted by **NIELIT**	III year
18.	21.01.2019 to 28.02.2019	KPIT has given internship offer at Bangalore	KPIT placed students
19.	03.02.2019	Practice test in C Programming	III year
20.	10.02.2019	**Performance Assessment** of the trained studentsin **C Programming and MCQ** was conducted by **NIELIT**	II Year
21.	10.02.2019	**Performance Assessment** of the CoE students in **C Programming and MCQ** was conducted through skill rack portal	II & III year
22.	11.02.2019	C Programming final test	III year
23.	16.02.2019	"**C Programming Assessment and Mock Interview**" has been conducted by **Alumni Students** under three levels (**Basic Programming Skills, Object Oriented Programming Skills, One to One Direct Interview**)	III year
24.	05.03.2019	Guest Lecture **"Career opportunities of Electronics Engineers in Automotive Industries and in Research" by Dr.Esaki Muthu Pandara Kone**	II & III year AE-COE students

		SHRINATHAN,Research Scientist , Toyata Central Research and Development, Nayogia, Japan	

ACTIVITIES FOR THE ACADEMIC YEAR 2019-2020

S. No	Date	COE Activity	Year (II year/III year/IV year)
1.	03.06.2019 to 07.06.2019	BOSCH Automotive Joint Certification Program at Regional Training Centre, BOSCH, (Bharath University, Selaiyur.)	Faculty
2.	14.06.2019 to 19.06.2019	**Phase – I training on "Embedded System Design using ARM Cortex M4 "** training was conducted by **NIELIT**	III year (2017 Batch)
3.	29.07.2019	Online test conducted by KPIT for campus recruitment process	IV year (2016 Batch)
4.	30.07.2019 to 03.08.2019	**Phase – II training on "Embedded System Design using ARM Cortex M4"** training was conducted by **NIELIT**	III year (2017 Batch)
5.	02.08.2019	**Campus Recruitment by KPIT Technologies**	IV year (2016 Batch)
6.	13.09.2019	C programming Assessment	III year (2017 Batch)
7.	11.01.2020	Guest Lecture on "Software stack for Autonomous vehicle"	II and III year AE-COE students (2018 & 2019 Batch)
8.	07.02.2020	Lab Inauguration "M/s. BOSCH Limited"	For COE students (2018 & 2019 Batch)
9.	06.03.2020	Guest Lecture on "Architecture of Electric Vehicle" from TVS	II and III year AE-COE students
10.	07.03.2020	Industrial Visit to TVS	II and III year AE-COE students (2018 & 2019 Batch)
11.	10.03.2020 & 11.03.2020	C Programming Refreshing Course	III year AE-COE students (2017 Batch)
12.	03.05.2020	Webinar for Automotive Electronic - COE students in the title "Electrical, Electronics & Communication Engg In Automotive Industry-Current Trends And Higher Studies"	II and III year AE-COE students (2018 & 2019 Batch)
13.	11.05.2020	Webinar for Automotive Electronic - COE students in the title "Designing an Automotive Control System using Model-Based Design".	II and III year AE-COE students (2018 & 2019 Batch)
14.	14.05.2020	Online Hands on session (work shop) on "Introduction to Data Analytics for Electronics Engineers Using Python" for AE - COE students @ 7.00pm	II and III year AE-COE students (2018 & 2019 Batch)
15.	23.05.2020	Online webinar for AE COE - II year students on " Embedded Programming for Automotive industries"	II year AE-COE students

		conducted by Ms. Sivaranjani S, Assistant Manager, TVS group of companies, at 11.00am.	
16.	03.06.2020	AE-COE webinar for III year students on "Embedded Programming for Automotive industries" at 3.00pm to 4.00pm.	III year AE-COE students (2017 Batch)
17.	07.06.2020	AE-COE webinar for II and III year students on "Basics of AUTOSAR & Autonomous Driving" at 6.00pm to 7.00pm	II and III year AE-COE students (2018 & 2019 Batch)

ACTIVITIES FOR THE ACADEMIC YEAR 2020 – 2021

S. No	Date	COE Activity	Year (II year/III year/IV year)
1.	03.06.2020	AE-COE **webinar** for III year students on "Embedded Programming for Automotive industries" at 3.00pm to 4.00pm.	III year AE-COE students (2017 Batch)
2.	07.06.2020	AE-COE **webinar** for II and III year students on "Basics of AUTOSAR & Autonomous Driving" at 6.00pm to 7.00pm	II and III year AE-COE students (2018 & 2019 Batch)
3.	07.02.2021	Placement Drive was conducted by M/s. KPIT Pvt Ltd for the batch of 2017-2021 batch ECE & EEE students	2017-2021 batch ECE & EEE students
4.	03.03.2021	AE CoE Road Show event	2019-2023 batch ECE & EEE students
5.	15.05.2021	**Guest Lecture** on "WORLD OF AUTOMOTIVE TECHNOLOGIES" will be conducted by M/S MARUTI SUZUKI INDIA LIMITED for II years (2019-2023) and III years (2018-2022) Automotive Electronics CoE Students @11.00AM TO 12.30 PM	II yr and III Yr AE-COE Students (2019 and 2018 batch)
6.	17.05.2021	**GUEST LECTURE** FOR AE COE STUDENTS ON " AUTOMOTIVE BREAKING SYSTEMS" @ 4:00pm - 5:30pm	II yr and III Yr AE-COE Students (2019 and 2018 batch)
7.	18.05.2021	**Quiz Program** forCOE-AE-2023 BATCH-QUIZ FOR AUTOMOTIVE ENTHUSIAST @ 4:30pm - 5:30pm	II year AE-COE students (2019 Batch)
8.	21.05.2021	**Training Program** on "Impact of Electronics in Automotive Industry" @ 4.00pm to 6.00pm	III year AE-COE students (2018 Batch)
9.	11.06.2021 & 12.06.2021	AE-COE **webinar** for II and III year students on "INTRODUCTORY TRAINING ON MATLAB AND SIMULINK" at 5.00pm to 6.00pm	II yr and III Yr AE-COE Students (2019 and 2018 batch)