

EMBEDDED SYSTEMS - CENTRE OF EXCELLENCE

About the CoE:

Embedded Systems is the need and trend of the day and the future. Today 90% of computing devices are in Embedded Systems. It has more than 10 % growth rate per annum and over 40 billion devices are forecasted by 2020. This means 5 to 10 embedded devices per person on earth. The application areas start from tiny toys to aerospace applications, including consumer electronics, medical electronics, remote automation, industrial controls, automotive electronics, telecom, military applications and so on. This significance makes the Centre of Excellence in Embedded Systems a vital requirement for training the future Engineers.

Any industry needs the fusion of hardware and software and our Embedded Systems Engineers have a wide scope of placement opportunities in an ever progressive list of companies which includes WIPRO, Valeo, EmbeddedUR, Siemens, Honeywell, General motors, Cisco systems, L&T infotech and the list continues. They can exhibit their talents in product development, product engineering services and research.

The Centre of excellence is being established in collaboration with Wipro Technologies. The technical facilities is to be utilized to make the students equip themselves with the technical know-how in the area of embedded systems, develop products and to disseminate knowledge to the interested Engineers.

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

Faculty SPoC/Coordinator:

SPoC: Mrs.M.SHAKUNTHALA ,Assistant Professor/ECE/ R.M.D.E.C



TRAINING ROLL-OUT PLAN

CoE BATCH	FIRST YEAR		SECOND YEAR		THIRD (PREFINAL) YEAR		FINAL YEAR	
	I SEM	II SEM	III SEM	IV SEM	V SEM	VI SEM	VII SEM	VIII SEM
2017-21			Selection Process	Training In Programming	ES Training	ES Training Project Expo I	Placement	Internship Project Expo II
2018-22			Selection Process Training In Basics of ES	Training In Programming	ES Training	HCL Training ES Training Project Expo I	Placement	Internship Project Expo II
2019-23			Selection Process Training In Basics of ES	Training In Programming	ES Training	HCL Training ES Training Project Expo I	Placement	Internship Project Expo II

Industry Advisory Committee Members

Sl. No.	Name of the Expert	Designation	Name of the Company
1	Mr. Ganeshan Kailasam	Architect	WIPRO Limited
2	Ms. Kavitha Naidu	Senior Delivery Manager	WIPRO Limited
3.	Mr. Koteswaran Srinivasan	General Manager Engineering Technology Office	HCL Technologies
4.	Mr. Saumendra Dash	Solutions Architect	HCL Technologies
5.	Mr. Giri K K	VP & Global Delivery Head	L& T Technology Services Limited
6.	Mr. Maharajan Veerabahu	Co-founder & Head Software services	E-con Systems India Pvt Ltd
7.	Mr. Sreedharan NG	Sr. Vice President of Design and Engineering	Syrmatech

EMBEDDED SYSTEMS CoE LAB INAUGURATION

(on 13.01.2018 by Ms. Kavitha Naidu Senior Delivery Manager, WIPRO Ltd)





MoU with HCL Technologies

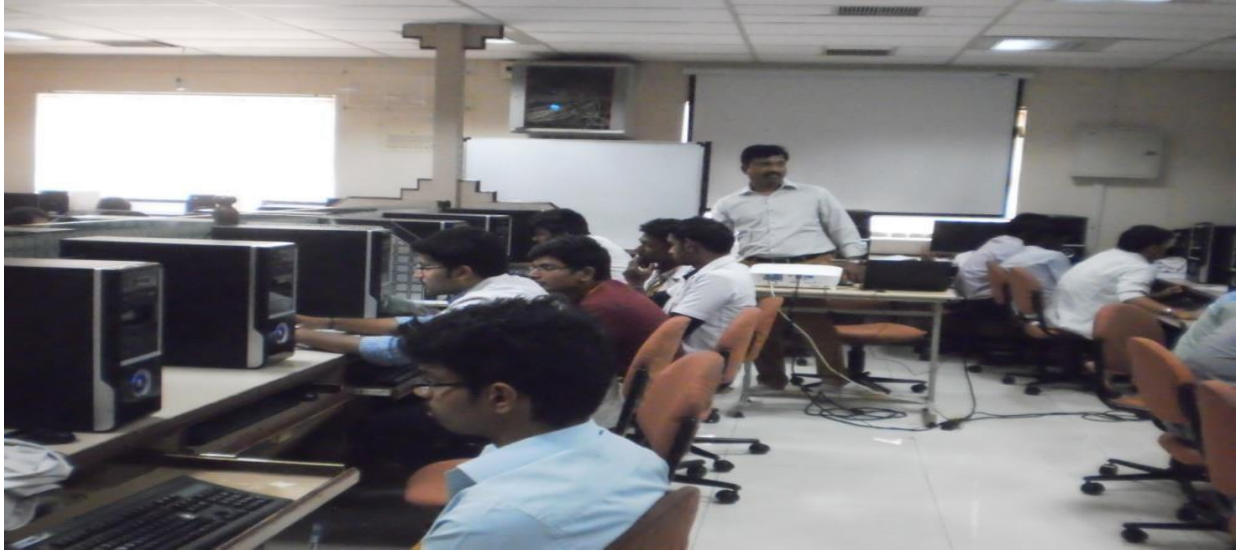
Embedded Systems Training and Placement

**(on 16.10.19 by Ms.Kanchan Khedkar, Associate General Manager (HR),
HCL Technologies)**





CDAC Training Sessions



SEMESTER HOLIDAYS - TRAINING SCHEDULE

DATE: 30-11-18 TO 05-12-18

VENUE: RMKEC, SN-110

Date	8.30 AM to 12.00 Noon	12.35 PM to 3.05 PM
30-11-18	Introduction to Embedded Systems Dr.Vino Vilmet Rose. ASP/EIE/RMDEC	Introduction to RTES Ms.Geethamahalakshmi M. AP/EEE/RMKCET
01-12-18	Embedded System Design Flow Dr.Vino Vilmet Rose. ASP/RMDEC	Hardware Simulation Dr.S.Anita. ASP/EEE/RMKEC
03-12-18	IDE - Software simulation Dr.S.Anita. ASP/EEE/RMKEC	IDE - Software simulation Dr.S.Anita. ASP/EEE/RMKEC
04-12-18	Simple Communication Protocols Ms.Geethamahalakshmi M. AP/EEE/RMKCET	Simple Communication Protocols Ms.Geethamahalakshmi M. AP/EEE/RMKCET
05-12-18	Embedded OS Dr.Vino Vilmet Rose. ASP/RMDEC	Embedded OS Dr.S.Anita. ASP/EEE/RMKEC

Guest Lectures (2019-20):

S.No	Name of the Event	Date	Resource Persons	Target Audience
1	Guest Lecture on “Arduino-Basics to Advanced Techniques”	07.03.2020	Mr.Suresh V S, Software Engineer, Danfoss Industries Pvt Ltd, Chennai	II Year (2018-2022 batch) and III Year (2017-2021 batch) Embedded Systems CoE Students of RMD Engineering College
2	Guest Lecture on "Embedded System – The Future Scope"	11.03.2020	Mr.Shabarinath Premlal, Founder, Respro Labs, Chennai	II Year (2018-2022 batch) and III Year (2017-2021 batch) Embedded Systems CoE Students

				of RMD Engineering College
3	Webinar On " Embedded Systems and Application"	25.04.2020	Ms.N.Swetha, System Validation Engineer, INTEL Corporation	II Year (2018-2022 batch) Embedded Systems CoE Students of RMD Engineering College
4	Webinar on "Opportunities in Embedded Systems"	27.04.2020	Ms.N.Swetha, System Validation Engineer, INTEL Corporation	III Year (2017-2021 batch) Embedded Systems CoE Students of RMD Engineering College
5	Webinar on "RASPBerry PI"	05.06.2020	Mr.Ravivarman Rajendran, Founder, DreamerIndia Innovations	II Year (2018-2022 batch) and III Year (2017-2021 batch) Embedded Systems CoE Students of RMD Engineering College
6	Webinar on "Embedded Hardware and Software In Automotive Domain"	11.06.2020	Ms.T.Devisree, Design Engineer, KPIT	II Year (2018-2022 batch) and III Year (2017-2021 batch) Embedded Systems CoE Students of RMD Engineering College
7	Webinar on " INDUSTRIAL IoT 4.0"	13.06.2020	Mr.R.Abhishek, Project Engineer, WIPRO Technologies	II Year (2018-2022 batch) and III Year (2017-2021 batch) Embedded Systems CoE Students of RMD Engineering College

Guest Lectures (2020-21):

1.Orientation session on Embedded and Imaging Technology by HCL Executives for 3rd Year Embedded CoE students is conducted on 16.10.2019

Guest Lectures



Project Expo



TRAINING COURSE CONTENT (Proposed by CDAC, Chennai)

- **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**

HCL Embedded and Image Technology Training

Current Batch in Training - 2018-2022 Batch Training Details:

- MoU is signed with HCL Technologies for career oriented training in Embedded and Image Technology.
- 5th semester - C Programming, Data structures and Embedded Basics Training and Shortlisting
- 6th semester- System programming course by HCL
- Successful students given offer letter by HCL at the end of 6th semester.
- 7th semester - Linux kernel and Device driver programming
- 8th Semester -n corporate projects offered.
- Successful completion confirms placement in HCL

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

Embedded CoE Placement Details

S.No	Batch	No. of Students Enrolled	No. of students got placed
1	2014-18	18	10
2	2015-19	14	14
3	2016-20	13	13
4	2017-21	14	1*

GLOBAL CERTIFICATIONS

- <https://www.coursera.org/learn/iot>
- <https://www.coursera.org/specializations/iot>
- <https://www.edx.org/course/embedded-systems-shape-world-multi-utaustinx-ut-6-20x>
- <https://ce.uci.edu/areas/engineering/embedded/>
- https://swayam.gov.in/explorer?category=ELEC_ENGG