Volume:01 Vishuatronic 2013-14

The new electronic independence re-creates the world in the image of a global village.

VISHWAKARMA

Vishwakarma Institue of Technology Department of Electronics Engineering

About the Department

The Department of Electronics Engineering is one of the major Departments of Vishwakarma Institute of Technology, Pune. The department is proactive in experiential learning and applied research in the areas of signal processing ; micro-electronics, speech processing, machine intelligence, communication engineering and real-time embedded systems.

The Department of Electronics Engineering established in the year 1985 offers Under Graduate course- B Tech. (Electronics Engineering). The department caters to the ever increasing needs of technical brilliance in all allied areas of electronics engineering. The Department has well-equipped 10 laboratories with high end equipments such as Digital Storage Oscilloscopes, High Frequency Counters, Antenna Trainer Kits, Combiscopes, Pneumatic Trainer Kits, Blackfin Digital Signal Processors, FPGA Vertex-5 kits, Spartan-3E kits, ARM 7, ARM 9, Cortex-M3 kits etc. and licensed softwares such as Mentor Graphics, MATLAB, etc.

Our faculty members challenge their students, share insights gained through professional experience and communicate the knowledge they have spent a lifetime acquiring. They dont rely on teaching assistants and they are supportive in the classroom.

The students are focused with the use of conceptual understanding of core domain areas as well as enhanced skills disseminating their analytical abilities. Students of the department are actively involved in various technical activities through IEEE students chapter Pune. Our aim is to provide students the lifelong learning and leadership skills that enable them to in their professions and advance to positions of responsibility by effective industry-Institute Interaction.

From the H.O.D 's Desk



PROF. A. M. CHOPDE Head, Dept. of Electronics Engineering

On behalf of Department of Electronics Engineering, I offer you our most grateful welcome to our Newsletter. It is to make a summary of achievements, events and news related to the department available for you on a click. Certainly you will sense the growth and development for students as well as faculty.

Technical learning is inherent part of life of engineering students. But to glorify their career path we support them for their co-curricular as extracurricular activities. This newsletter shows results of the efforts. The achievements of faculty as well as sudents in various fields are published here. The technical content related to the subjects, their applicability in the projects is understood by the students thoroughly during the journey with the institute. The same is reflected in the articles. It will be definitely motivating to their juniors.

Stakeholder is one of the strongest pillar in the structure of department. Constant support and guidance by our stakeholders helps to achieve better. With your assistance as always I believe that our team can march towards professional excellence.

Departmental course conduction by industry faculty 2013 -2014

| Sr. No. | Subject Taught | Name of Industry Expert | Experience in years | Organization of work | Domain |
|---------|--|-------------------------------|------------------------|-------------------------------------|------------------------------|
| 1 | EC24313 Introduction to LINUX | Mr. Gaurang Gorasiya | 4.5 Yrs | Global Talent Track Pvt. Ltd. | LINUX Operating System |
| 2 | EC30106 Power Electronics | Mr. Prasad Deshpande | 15 Yrs | Philips, Pune | Power Electronics |
| 3 | EC33312 Switch Based Simulation | Mr. Sravan Vaidya | 5 | IBM, Pune | VLSI |
| 4 | EC33314 PCB design | Mr. Subhash Akiwate | 18 Yrs | Akiwate Industries, Pune | PCB Design |
| 5 | EC33316 Industrial Wireless Communication | Mr. Deepak Bodhani | 20 Yrs | Digitech Engineers | Communication |
| 6 | EC41301 Embedded Systems | Mrs. Sayali Kulkarni | | KPIT Cummins | Embedded |
| 7 | EC42115 High Power Semiconductor Devices | Mr. Prasad Deshpande | | Philips | Power Electronics |
| 8 | EC48101 High Level Verification (Honors) | Mr. Sravan Vaidya | | IBM, Pune | VLSI |
| 9 | EC48105 Real Time Operating Systems | Mrs. Sayali Kulkarni | | KPIT Cummins | Embedded |

Faculty Awarded 2013

| Sr No 1 | Name of Faculty Vijay Gaikwad | Award received VIT SHRI | Awarding Body VIT, Pune | Date Awarded Sep-13 | Place Pune | Details of Awards |
|---------------|----------------------------------|-------------------------------|-------------------------------|---------------------------|---------------|--|
| 2 | Vijay Gaikwad | Best Project | University of Pune | Dec-13 | Pune | Avishkar- 8th Maharashtra state Inter university research convention |
| 3 | S.N.Shilaskar | publication in journal | VIT, Pune | Sep-13 | Pune | |

Conferences Attended (2013-14)

| Faculty Name | Name of the conference/ Workshop/Seminar | National/ Internati onal | Dates | Place | No. Of Days |
|----------------|---|--------------------------------|---------------------|--------------------------------------|-------------|
| S.N.Raut | International conference for convergence of technology | Internati onal | 6-8 april 2014 | Sharadchandra pawar college pune | 03 |
| S.N.Raut | Statistical signal analysis in MATLAB | | 10th -12 th oct2013 | Trinity college of engg. Pune | 03 |
| V.P.Parkhi | Simulation of power electronics circuits | | 8th 9th oct2013 | IIT Bombay | 02 |
| A.B.Barbadekar | NuMicro ARM Cortex M0 | | 15-16 Jan 2014 | University of pune | 02 |
| R.V.Tornekar | Signals & systems | 1 | 2nd 12th jan 2014 | Conducted by IIT Kharagpur in vit | 11 |
| A.K.Talele | Signals & systems | 113 | 2nd 12th jan 2014 | Conducted by IIT Kharagpur in vit | 11 |
| Sunil Biradar | Signals & systems | 125 | 2nd 12th jan 2014 | Conducted by IIT Kharagpur in vit | 11 |
| S.N.shilaskar | VLSI Design Seminar | | 23-08-2013 | Cadence design systems | 01 |
| S.N. shilaskar | Signals & systems | | 2nd 12th jan 2014 | Conducted by IIT Kharagpur in vit | 11 |
| B.G.Taralekar | Signals & systems | | 2nd 12th jan 2014 | Conducted by IIT Kharagpur in vit | 11 |
| S.B.Bhorage | Signals & systems | | 2nd 12th jan 2014 | Conducted by IIT Kharagpur in vit | 11 |
| D.G. Kanade | Signals & systems | | 2nd 12th jan 2014 | Conducted by IIT Kharagpur in vit | 11 |
| M.B.Tirmare | Signals & systems | | 2nd 12th jan 2014 | Conducted by IIT Kharagpur in vit | 11 |
| D.G.Kanade | FTP on nuvoton numicro ARM cortex-m0 and its application | | 15-16 jan 2014 | University of pune | 02 |
| S.N.Raut | Signals & systems | | 2nd 12th jan 2014 | Conducted by IIT Kharagpur in vit | 11 |
| A.B.Barbadekar | Signals & systems | | 2nd 12th jan 2014 | Conducted by IIT Kharagpur in vit | 11 |
| M.M.shidore | Embedded control systems | | 12-16 may 2014 | IIT bombay | 05 |
| M.M.shidore | Signals & systems | | 2nd 12th jan 2014 | Conducted by IIT Kharagpur in vit | 11 |
| S.B.Bhorge | FTP on Statistical inference and linear algera | | 16-21 dec. 2013 | SGGSIE&T Nanded | 06 |
| S.P.Ballal | VLSI Design Seminar | | 23-Aug-13 | Hotel Courtyard, pune | 01 |
| S.P.Ballal | Signals & systems | | 2nd- 12th jan 2014 | Conducted by IIT Kharagpur in vit | 11 |

Student Achievement Award July 2013 -June 2014

| Sr No | Name of Student | Event | Venue | Award | Year |
|----------|------------------|---|------------------------------------|---|--------------------------|
| 1 | Pratik Gandhi | Smart Analyst | VIT Melange 14 | Second | 24-28 Feb 2014 |
| 3 | Shruti Patil | Scientia 13 – PICT IET Student chapter. | PICT Pune | Participated | 31 Aug -1 Sep 2013. |
| 4 | Sumit Sathe | National Level Inter- Engineering Sports meet'13 | MIT , Pune | Participated | 20-24 Sep 2013 |
| 8 | Jagriti Dhawan | Summer project | Cummins India Limited , Pune | Completed Project work on " Pokayoke system for lube oil cooler o ring missing | 6 June – 15 July 2013 |
| 9 | Pratik Gandhi | IEEE Student Branch workshop on Microcontroller | VIT , Pune | Completed | 30-31 January 2014. |
| 10 | Pratik Gandhi | IEEE Student Branch workshop on Web Designing | VIT , Pune | Completed | 16-17 October 2013. |
| 11 | Shruti Dhangonde | Melange 2014 | VIT Pune | Event – Logic – x , Participated | 24-28 Feb 2014. |
| 12 | Shruti Dhangonde | Melange 2014 | VIT Pune | Event – C – Athlon , Participated | 24-28 Feb 2014. |
| 13 | Sumit Sathe | Inter Engineering College cricket | Pune | Winner | 2013-2014 |

| 14 | Sanyogeeta Kadu | Western Equestrian premier Leauge | Col Khans Equeestrian Academy | Won 1 Gold, 2 Silver and 1 Bronze. Third Prize | Feb 2014 |
|----|---|--|-------------------------------------|---|--------------------|
| 15 | Swapnali Sangale | Melange 2014 | VIT , Pune | First Prize – Volleyball (Girls) | 24 -28 Feb 2014 |
| 16 | Rahimullah Samandar (Afghanistan) | Fourth International conference on "Youth Dialogues Universal Development" | Pune | Participated | 8-9 Feb, 2014. |

IEEE ACTIVITIES

| 1 | Guest Lecture – Ganesh Ramakrishnan |
|----|---|
| 2 | Membership Drive |
| 3 | Guest Lecture – Dr. K.K. Ramakrishnan |
| 4 | Orientation Programme for the members |
| 5 | Matlab Workshop |
| 6 | Graphics Designing Workshop |
| | (Adobe Photoshop and Corel Draw) |
| 1 | Web Designing Workshop |
| 8 | MATLAB Workshop in Collaboration with |
| | SAE Student Branch |
| 9 | PCB Designing and Manufacturing Workshop |
| 10 | Microcontroller Workshop |
| 11 | Vishwatronix- |
| | Technical Festival of Electronics and EnTC department |
| 12 | Industrial Visit to VACPL and BSNL |
| 13 | Social Activity (Pitashree Vrudhashram |
| | and Bal Sangopan Kendra) |
| 14 | LATEX Workshop |
| 15 | Guest lecture- Prof. Mukesh Motwani |
| 16 | Industrial Visit to PARI |
| | |

Companies offering Internship to students during summer 2014 **B. S. N. L. RTTC. Chinchwad Pune** Air India. Mumbai **RCF.** Alibag Damodar Vally Corpn. **Skytech**. Bangalore Sandvik Asia Pvt. Lt. Alstom India Ltd. Siemens Ltd. Nasik

Placement record of students

| | A.Y. 2012-13 | A.Y. 2013-14 |
|--|-----------------|-----------------|
| Placement offers in core electronics companies | 17% | 13% |
| Total placement offers | 57% | 72% |

Industry Sponsored Projects AY-2013-14

| Sr. No. | Sponsoring Industry | Area | Title |
|------------|---|---------------------------------------|--|
| 1 | Honeywell Automation India Ltd. Pune | Power Electronics | Brush DC Motor Drive system |
| 2 | Forbes Marshall, Pune. | Embedded System | Diagnostic Data Logger System |
| 3 | Digitech Engineers. Pune, | Embedded System, IP, Communication | PLC with co-ordinator. |
| 4 | Tata Motors Pune | Mechatronics | Engine Assembly Assistance Systems |
| 5 | Neowatt Energy Solutions Co Pvt Ltd. Pune. | Biomedical automation | Driver Fatigue Detection System. |
| 6 | G. M. R.T. | Power Electronics, Embedded System | Precision position control of DC motor using embedded system. |
| 7 | Mahindra Engineering Services, Chinchwad | Automation & Embedded System | Smart Body Controller. |
| 8 | SPJ Embedded Tech. Pune, | DIP & Embedded System | Implementation of image processing algorithm for robotics in Embedded system. |
| 9 | Forbes Marshall, Pune. | Embedded System | Smart Blowdown Controller |

Vishwatronic 2013-14

Staff Editors Prof.V.D.Gaikwad Prof.B.G.Tarlekar Prof.K.S.Devgaonkar

Student Editors Pratik Rokade Priyanka Palshetkar