



Rastreeya Shikshana Samiti Trust

R V College of Engineering

Department of Electronics and Instrumentation Engineering

8th Mile, Mysuru Road, Bengaluru - 560 059.

"AUTOMATION EXPLORER"

NEWSLETTER

Vol-1, Issue -2, 2015

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R V College of Engineering (RVCE) Established in 1963 with three engineering branches namely Civil, Mechanical and Electrical, today RVCE offers 12 Under Graduate Engineering programmes, 22 Master Degree programmes and Doctoral Studies, located 13 km from the heart of Bengaluru City - the Silicon Valley of India, on Mysuru Road Sprawling campus spread over an area of 52 acres set in sylvan surroundings provides an ideal ambience to stimulate the teaching-learning process, helping in bringing out skilled and disciplined Engineers. RVCE is rated amongst the top ten self-financing Engineering institutions in the country. Current annual student intake for Undergraduate Programmes & Post Graduate Programmes in Engineering is in excess of 1200. Highly qualified and dedicated faculties utilize their expertise in various disciplines to conduct Research and Development for Industry and Defense establishments in the country.

Message from Editor's Desk

Welcome to this issue of Newsletter from the Department of Electronics and Instrumentation Engineering. We are delighted to launch our Bi annual Newsletter "**AUTOMATION EXPLORER**". This newsletter is a digital way for us to communicate with our students, faculty members, alumni and industrial partners. This newsletter will provide a glimpse of the department activities and achievements within the academic unit. Also it enlightens the readers about the latest happenings in the department, focusing about activities, placement, ISA and institutional club activities. We look forward for more activities and achievements from the department to march towards excellence in the future.

1. About the Department of Electronics and Instrumentation Engineering

The Instrumentation Technology Department was established in the year 1981 with an intake of 40 students and the current intake is 60 students. The Instrumentation Technology was later nomenclated as "**Electronics and Instrumentation Engineering**" in the year 2014. The department also runs a Post-Graduate programme in Biomedical Signal Processing and Instrumentation and an established Research Centre in 2011, affiliated to VTU Belagavi. The syllabi of the courses are contemporary and constantly updated as per industry needs and the laboratories are modernized to reflect the latest changes in technology. It offers high quality research as part of its Ph.D programs. The department has been accredited multiple times by NBA, New Delhi, the latest being in 2013 for UG and in 2014 for PG. The department has to its credit sanctioned projects and programs, sponsored by various agencies and organizations.



Dr. K B Ramesh, HoD

The department aims to produce engineering graduates with adequate theoretical and practical knowledge in the area of electronics as well as instrumentation and computers so as to make them capable of design, implementation, development and maintenance of advanced instrumentation systems.

Instrumentation engineering is a specialized branch of electronics, computers and electrical engineering, primarily focusing on the principles and operations of measuring instruments used in the design, implementation, configuration, and development of automated systems. Electronics and instrumentation engineers carry out the task of measuring, testing, installing, designing, and maintaining various instruments used in the industry, hospital and other sectors of the society as well as carrying research in domain areas. The aim of instrumentation engineers is, "***To measure the world accurately and to control it precisely***".

The program curriculum is suitably designed to meet the challenges of global technology. The department has well qualified and experienced faculty members with research experience in allied domains and well equipped laboratories.

The implementation of outcome based education in the program enhances the knowledge of faculties and students to meet the challenges of new technological world so as to mould the graduates as successful professional engineers, researchers and entrepreneurs. The curriculum of this program is good enough for employment in industry, government, academia, research and management positions.

At the outset, I congratulate the newsletter committee members for their efforts in bringing out the newsletter. Newsletter is an amalgamation of all the events held in the department and it plays a pivotal role in showcasing the achievements accomplished by the faculty and the students.

2. Department Vision, Mission, PEOs & PSOs

Vision

Achieving academic excellence in Instrumentation Technology by adopting interdisciplinary research with a focus on sustainable and inclusive technologies.

Mission

1. To create an environment for students to excel in domain areas and get motivated to involve in interdisciplinary research by utilizing state of the art infrastructure.
2. To impart technical knowledge, encourage experiential learning and develop future professional leaders.
3. To establish industry-academia networking and develop industry-ready students and future entrepreneurs, to meet societal & industrial challenges.
4. To motivate lifelong learning and research in sustainable technologies to find improved solutions for the betterment of society.

Program Educational Objectives (PEOs) of the Department

1. Apply Instrumentation, Electronics, Controls and Automation concepts to develop technical solutions for industrial problems.
2. Exhibit competency in adapting to various industrial challenges and work in inter-disciplinary projects with team spirit and professional ethics for achieving organizational goals.
3. Pursue higher education in technology or management and achieve professional excellence by imbibing leadership qualities and communication skills.
4. Become entrepreneurs with a focus on sustainable technologies and develop innovative solutions to meet industrial and societal needs.

Program Specific Outcome (PSOs) of the Department

- PSO1:** Design, analyze and practice the instrumentation, controls and automation concepts and techniques required for industrial and/or research pursuits resulting in product development, publications or patents.
- PSO2:** Demonstrate the knowledge of basic science, mathematics, electronic system design and programming for real-time applications, towards developing industrial solutions and become technology leaders of future.

3. Departmental Activities from July 2015 to Dec 2015.

The department always endeavored to contribute significantly to the growth of technical education. The department has organized several workshops, seminars and guest lecturer for the benefit of faculty, students and research scholars of educational institutions in and around the region.

Table 1: List of activities conducted in the Department

Sl.No	Event Organized	Contributory Industry/ Institution/ Faculty	Organized by Department	Date
1	Embedded Processors & Applications for Technical staff.	TEQIP, RSST-Bengaluru.	E&I, E&C, EEE,TCE.	13-7-2015 17-7-2015.
2	Parent Teacher Meeting	NIL	E&I	31-10- 2015
3	PCB Designing	RVCE Bengaluru	E&I	08 -11- 2015
4	One Week hands- on Training and Workshop on LabVIEW	RVCE Bengaluru & NI Bengaluru	E&I	28-12- 2015 to 2-1-2016

Gallery :



EVENT 1: PCB designing held on 8-11-2015. Students were exposed to making of PCB and fabricating.



EVENT 2: Embedded Processor & Applications for technical staff. Dr. K B Ramesh, HoD, being one of the resources Person for introduction to μp and μc for technical staff.



EVENT 3: Parent Teachers Meeting held on 31-10-2015. Dr. K.B Ramesh addressing the parents



EVENT 4: One week hands on workshop on LabVIEW for as part of pre CLAD preparation. The participants were from circuit branches (TCE, EEE, ECE, E&IE)

4. RVCE- ISA activities.

The Instrumentation Technology program has conducted many professional activities under lead International societies like ISA, which is a non profit professional body that sets the standard for those who apply engineering and technology to improve the management, safety, and cyber security of modern automation and control systems used across industry and critical infrastructure. ISA develops widely used global standards; certifies industry professionals; provides education and training and provides career development programs for its members. RVCE-ISA student section is active since 2000 in the department. The RVCE-ISA activity is headed by **Prof. S. Venkatesh.**

Table 2: List of activities conducted under RVCE-ISA

Sl.No	Date	Event	Resource person
1	26-08-2015	Investiture program for newly elected office bearers Key note talk on current trends on Automation Industry	<ul style="list-style-type: none">• Rajshekhar Uchil (ISA Bangalore Section President)• Mr. PS Krishna (Sr. Automation Consultant and Sr. ISA member)
2	15-10-2015	Technical talk on automation and interdisciplinary approach	<ul style="list-style-type: none">• Mr. Rajasekhar Uchil (ISA Bangalore Section President)• Dr. Sunil Shah ISA, Bengaluru
3	29-10- 2015 to 31-10-2015	Workshop on Industrial Automation.	<ul style="list-style-type: none">• Dr. Rajabhadur V Arcot, ISA trainer and analyst, President of RR Concepts &• Mr. PS Krishna, Automation Consultant• Mr. Ram Kerur, Director of Sunlux Technologies• Mr. Kumar, Beckhoff Automation• Mr. Arum Kumar, HIMA, Bengaluru
4	18-11-2015	Seminar on Safety Instrumentation and Control Valves	<ul style="list-style-type: none">• Mr. PS Krishna, Sr. Automation Consultant.• Mr. Rajabhadur Arcot, SA trainer and Analyst, President of RR Concepts

5. Industrial Visits.

The Department has common practice to arrange Industrial visits atleast once in a semester to give exposure to in the field of Automation, Electronics and Instrumentation. The department has organized an Industrial visit to BHEL, Bengaluru on 20th October 2015 for current 5th Semester to give exposure to automation technologies used in Industry level.

6. Frequency Club activities

“Frequency club” encourages technical creativity among the students at institutional level. The purpose of frequency club is to bring out efficient engineering graduates powered with multiple technologies and inspire young brains to develop interesting solutions for industrial, medical & societal problems. Frequency club is active since 1995 and hosted by department of Electronics and Instrumentation Engineering under the leadership of **Prof. S. Venkatesh**.

Table 3: List of activities conducted under Frequency club

Sl.No	Date	Event	Resource person
1	21-07-2015	Technical Quiz	Quiz Corp- Aneesh Bharadhwaj and Shreyas Raghunath
2	03-09-2015	Technical Talk	Mrs. Prabha Subhramani, RVCE Alumnus, Software Engineer, Accenture, Bengaluru

7. Publication Details of Faculties/students.

1. Priyanka Premnath, Dr.K B Ramesh, Dr. Vidya Niranjana, Dr.B.P.Mallikarjunaswamy, Dr.E.T.Puttaiah "Design and Development of programming framework utilizing Biomarkers for identification of Rheumatic Arthritis" *International Journal of Advanced Research In Computer And Communication Engineering*, Paper ID 7J20, July 2015.
2. Priyanka Premnath , Dr.K.B.Ramesh, Dr.Vidya Niranjana ,Dr.B.P.Mallikarjunaswamy, Dr.E.T.Puttaiah"Novel Biomarkers for Diagnosis of Rheumatic Arthritis" *IJCSMC*, Volume 4 Issue 6 June, 2015.
3. Melanie Patsy, Prof. Venkatesh.S, Dr. Subhash Narayanan, V.G. Prabitha, " Diffuse Reflectance Image Enhancement for Cervical Cancer Detection-A Review", *International Journal of Technology Enhancements and Emerging Engineering Research*, Vol.3 Issue.5, 2015.
4. Nitin Hegde, Harsha, Naganada M S ,EEG Signal Classification using K-Means and Fuzzy C Means Clustering Methods", *IJSTE - International Journal of Science Technology & Engineering*, Volume 2, Issue 01, July 2015 ISSN (online): 2349-784X
5. Kendaganna Swamy S, Anil N, Dr. Anand Jatti, Dr. Uma B V,"Platform Level Design For Network On Chips" *IEEE International conference on Advance Computing Conference (IACC)*, Bangalore, India, 12-13 June 2015Page:16–19 Print ISBN: 978-1-4799-8046-8DOI: 10.1109/IADCC.2015.7154676 .
6. Kendaganna Swamy S, Dr. Anand Jatti, Dr. Uma B V, "Performance Enhancement and Area Optimization Of 3x3 NoC Using Random Arbiter", " *IEEE International conference on Advance Computing Conference (IACC)*, Bangalore, India, 12-13 June 2015Page:11 – 15 Print ISBN: 978-1-4799-8046-8DOI: 10.1109/IADCC.2015.7154672.

7. Sandesh.R.S, Dr.Nithya Venkatesan,“Design and Implementation of Multipurpose Single channel Bio Signal Amplifier”, *ICACCI 2015 Kochi Proceedings in IEEE systems man and cybernetics* ISBN - 978-1-4799-8792-pp-149-153 on Aug 2015.

8. Placement Details:

As on 31st December 2015, 53 students of 2015 batch of department of Electronics and Instrumentation Engineering have been placed in various companies like Accenture, Cognizant, Infosys, Wipro and TCS. The percentage of placement is 88.3% of B.E Students of which 7 students went to overseas for higher studies (Table 4). The placement activities for current final year were started in the month of July 2015 of which 50 students have been placed and the process is still ongoing. The below table indicates the list of students placed in each domain for the classes of 2015. The placement activities are co-ordinated by **Prof. Kendaganna Swamy**.

Table 4: Placement Statistics for 2015 and 2016(on-going) batch

	2015	2016(on-going)
Total Number of students	64	68
Number of students eligible	60	63
Number of students obtained job	53	50
Placement %	88.33	80
Higher studies	7	--

9. Student Activities.

Table 5: List of activities attended by students

Event	Student name	Awards won	Venue
Summer/Intern	Ms. Arati Chandrashekar	Internship	IIT, Madras
Formula SAE Italy & Formula Electric Italy 2015 from	Mr.Ashwin Srinivas Badrinath, Mr. Suhas Shenoy	Participated	Riccaroo Paleetti Circuit, Varand de'Melegari, Italy
International Sports Fest	Ms. Sheetal S	Runner-up	PES University, Bengaluru
General Quiz, Aathma Trisha	Mr. Suhas Vyas	1 st Prize	PESIT, Bengaluru
Solo dance, Sarang	Mr. Zumair Kwhaja	1 st prize	IIT, Madras
Slow Cycling, Aathma Trisha	Mr. Namha Kumar.V	2 nd Prize	PESIT, Bengaluru

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