



**RV College  
of Engineering®**

Autonomous  
Institution Affiliated  
to Visvesvaraya  
Technological  
University, Belagavi

**Department of Electronics &  
Instrumentation Engineering**

Approved by AICTE,  
New Delhi, Accredited  
by NAAC, Bengaluru

## **“AUTOMATION EXPLORER” NEWSLETTER**

**Vol 6, Issue- 2, 2019  
(July –December 2019)**

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RV College of Engineering (RVCE) established in 1963 is one of the earliest self- financing engineering colleges in the country. The institution is run by Rashtreeya Shikshana Samithi Trust (RSST) a not for profit Trust. RVCE is an Autonomous college. Currently, the institution offers 12 Bachelor, 19 Master Programs and all the departments have research centre's, affiliated to Visvesvaraya Technological University (VTU) Belagavi. The institution has set itself a Vision “Leadership in Quality Technical Education, Interdisciplinary Research & Innovation, with a focus on Sustainable and Inclusive Technology”. Recent awards and achievements includes “Engineering College of the Year- 2015” by the Higher Education Review Magazine, Certified as 'Global League Institute' by Great Place to Study Research Institute (GPSRI), Ranked 49<sup>th</sup> in the Country by National Institutional Ranking Framework (NIRF- 2017), Ranked 7<sup>th</sup> among the top 113 Pvt. Engg. Colleges by The Week Magazine, Ranked 9<sup>th</sup> among the top 10 of 100 Pvt. Engg. Colleges in the Country by Education World Magazine. The institution has been accredited by NAAC. All the UG programs and eligible PG programs have been accredited multiple times by NBA. The College currently has a student strength of about 5600, faculty strength of more than 400, Technical & Administrative Staff of 256 and about 250 Research Scholars are pursuing PhD.

### **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 departmental activities and achievements. Also, it enlightens the readers about the latest happenings in the department, focusing about different activities like placement, ISA, institutional club activities, student and faculty achievements. We look forward for more activities and achievements for the department to march towards excellence in the future. I would like to thank all teaching, supporting staff and our beloved students for their constant support.

## 1. About the Department of Electronics and Instrumentation Engineering



**Dr. CH.RenuMadhavi, HOD**

Warm greetings to one and all....

It's my privilege to release the department newsletter of second issue, 2019. In the last six months there are many updates to present with respect to the department activities, staff and student achievements, and placements details etc.

I am glad to say that Dr. Rachana S Akki and Dr. Sandesh R S have successfully completed their final Ph.D defence viva voce in September and July 2019 respectively, counting upto 10 out of 15 being awarded PhD in the department.

The department has successfully organized various workshops, industrial visits and technical talks by experts from both national and International organisations. Experts from industry did partial course content delivery for the courses Robotics and Safety Instrumentation. Also Parent teachers meet was conducted. Department has initiated Design thinking Lab as a part of the curriculum. Students of both 1<sup>st</sup> year and 2<sup>nd</sup> year visited Schools in Mkerenahalli and Kakaramanahalli, Bidadi village and contributed for the knowledge sharing to the village school students. They developed models for giving concepts. The placement statistics of UG has been improved and achieved 84% with average package of 6.25LPA.

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<b>Jency Monica</b>	<b>8<sup>th</sup>sem</b>
<b>Shriya V.S.</b>	<b>8<sup>th</sup>sem</b>
<b>VeenaMB</b>	<b>6<sup>th</sup>sem</b>
<b>Vaishaka N Raj</b>	<b>6<sup>th</sup>sem</b>

## **2. Department Vision, Mission, PEOs and 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 interdisciplinary 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. M. Tech in Biomedical Signal Processing &Instrumentation

The department of Electronics and Instrumentation Engineering started PG program (M.Tech in Biomedical Signal Processing and Instrumentation) with an intake of 18 students in the year 2005 affiliated to VTU, Belagavi and reached autonomous status in the year 2016.The PG program has one Professor , Two Associate professors and one Assistant Professor.

### Program Educational Objectives (PEOs)

**PEO1:** Apply basic Physiological concepts and provide technical solutions for medical problems.

**PEO2:** Exhibit competency for achieving excellence in Industry, Academics, R&D organizations, Entrepreneurial pursuit and consulting firms.

**PEO3:** Demonstration and develop sustainable biomedical engineering skills for betterment of society and ethics.

**PEO4:** Exhibit leadership qualities and engage in life-long learning through independent study and Research.

### Program Specific Outcomes (PSO)

**PSO1:** Design and analyze basic and advanced biomedical appliances required for medical domain and research pursuits.

**PSO2:** Apply the concepts of signal and image processing techniques to address the problems in healthcare.

#### 4. Minor Project Exhibition organized by the department for 7<sup>th</sup> Semester Students

The students of 7<sup>th</sup> semester were given an opportunity to showcase their work done in the minor projects in the exhibition organized by the department on 19/11/2019. All the projects were evaluated by our alumni Mr.Renuka Prasad, Director at ELIXIR Engineering Private Limited and Mr.Ankur Bodhe, System Engineer, Alstom Transports.



Fig 1: Students addressed by the Alumni of EI Department, Mr.Renuka Prasad and Mr.Ankur Bodhe during the minor project exhibition.

#### 5. Student Achievements

The students of 3<sup>rd</sup>, 5<sup>th</sup> and 7<sup>th</sup> semesters were motivated to take up the NPTEL courses in various domains and have successfully completed the courses. In addition to this the students are constantly encouraged to participate in techno-cultural events, Tables 1 and 2 gives list of activities from students for the past 6 months.

Table 1: Technical Activities

Sl. No	Event	Name of the Student	Prize won	Place of the event
1.	2019 3 <sup>rd</sup> International Conference on Cloud and Big data computing (ICCBDC), Oxford, UK, August 28 <sup>th</sup> - 30 <sup>th</sup> 2019	Namita Shah	Best paper Presentation Award.	University of Oxford, UK
2.	2019 41 <sup>st</sup> Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC), Berlin, Germany, 23rd - 27th July, 2019.	Devanshu Mukherjee, Somali Roy	Paper presentation	Berlin, Germany
3.	Anveshan 2020 fellowship by Analog Devices	1. Shashwat Raj, Ravi Kashyap, Ashutosh Kumar Singh, Harsimran Singh, Pooja Kumari Mentor: Dr. Deepashree Devaraj 2. Veena M B, Vaishaka Raj Mentor: Dr. Kendaganna Swamy	Proposal accepted for funding round	-
4.	Mitsubishi Electric cup 2019	Prajwal, Prameeth, Sai Vishnu Mentor: Dr. Rachana S Akki	Selected	-
5.	Asia Oceania Systems Engineering Conference 17-18 October, 2019	Srinivas Prabhu B, Ruthvik S.J.	Participation	Shangri-La Hotel, Bengaluru



Table 2: Students Achievements (SPORTS)

Sl. No	Event	Name of the Student	Prize won	Place of the event
1.	22nd Dr. M S Ramaiah Inter Engineering colleges cricket tournament 11th to 20th November 2019	Suraj Kumar	Runners	MSRIT, Bengaluru
2.	VTU Inter collegiate – Bengaluru South Zone Throw Ball (Women) Tournament. 2019-20. 22nd& 23rd November 2019	Soundarya S and Team	---	Jyothi Institute of Technology, Bengaluru-82
3.	VTU Inter collegiate yoga competition cum selection trials(Men and Women). on 13th to 14th September 2019.	Soundarya S	18th place	Hirasugar Institute of Technology, Belagavi-591236
4.	Interzonal Badminton Tournament 2019 27th TO 28th August 2019	Venkat S Raghavan	Winners	SJMIT, Chitradurga
5.	BSZ Badminton 2019 21st TO 22nd August 2019	Venkat S Raghavan	Winners	SJBIT, Bengaluru



Fig 2 Namita Shah, won ‘The Best Paper Presentation’ Award at International Conference on Big Data and Cloud Computing, Oxford, UK, 2019



Fig.3 Devanshu Mukherjee and Somali Roy at International Conference of the IEEE (EMBC), Germany.



Fig.4 Mr. Venkat Raghavan, won the inter zone Badminton Competition at SJMIT, Chitradurga, 2019.





Fig.5 Soundarya S won the Utsarga marathon 5K at RVCE,2019



Fig.6 Suraj Kumar, MSRIT Cricket Tournament,2019

## 6. Departmental Activities from JULY 2019 to DEC 2019

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

Table 2: List of activities conducted in the department

Sl. No	Event Organized	Contributory Industry/ Institution/ Faculty	Organized by Department	Date
1.	Graduation Day of UG and PG	Faculty	EIE Dept	27.7.2019
2.	Talk on Robotics by Alumni.	Mr. Abhinav Kalamdani	EIE Dept	14.9.2019
3.	Parents teachers meet	Faculty	EIE Dept	22.9.2019
4.	Technical Seminar on “Safety in Industries”	Eshwar Doddamani, Dy.Director (Admin), RVCE	EIE Dept	29.9.2019
5.	ISA- RVCE, Student Section	Home Automation	EIE Dept	13.10.2019
6.	Labview training of technical staff.	Faculty	EIE Dept	15.10.19 and 16.10.19
7.	Expert Lecture on Machine Learning and Applications.	Mr. Anurag Shivaprasad, Software Engineer, Amazon, California	EIE Dept	24.10.19
8.	Expert Lecture on CMOS VLSI Design.	Prashanth Narayana (Broadcom technology, Bengaluru). Ms.Nischita (HCL Technologies, Bengaluru.)	EIE Dept	19.10.19
9.	As a part of AICTE 100- Points Activity for 3 <sup>rd</sup> sem, visited 2 Schools in Mkerenahalli and Kakaramanahalli , Bidadi.	Dr.Anand Jatti Dr.Deepashree Devaraj Dr. Kendaganna Swamy	EIE Dept	18.11.19 and 19.11.19
10.	Embedded IOT Workshop- CISCO RVCE, Centre of Excellence	Dr.Padmaja K.V., Prof. Rajasree PM, Dr.Sandesh R S	EIE Dept	28.12.2019 and 29.12.2019
11.	Expert Lecture on Open source softwares	Dr.Renuka Prasad, Associate Professor, MCA Dept	EIE Dept	26.11.19

## 7. Awards and Recognition

- Dr. Padmaja K V was invited as adviser/member of the Personality test (pt) Board for Engineering Services exam 2019 UPSC, New Delhi during 14.10.2019 to 18.10.2019.
- One of the Research Scholar from EIE Dept Mrs.Vidya MJ completed her final PHD Viva-Voce on 28.11.19 under EIE Research centre, RVCE from VTU.
- Prof. Rachana S. Akki, Asst. Professor, and Prof. Sandesh R S, Asst. Professor, have completed their Ph.D final defence viva voce on 13th Sept 2019 and 2nd July 2019, respectively.
- Dr. Rachana S Akki, Dr. Deepashree Devaraj, Dr. Kendaganna Swamy S, Dr. Sandesh RS were felicitated by ISTE- RVCE Chapter as a part of Teachers day celebration held on 26th September 2019.
- Dr.Deepashree Devaraj was invited as reviewer for two journals namely Seminars In Ophthalmology, a Taylor & Francis journal and Biocybernetics and Biomedical Engineering, Elsevier Journal.

## 8. Workshops/seminars/conference attended by faculty.

**Table 3: List of workshops/seminars/conference attended by faculty**

Sl. No	Faculty Name	Conference /Workshops /Seminars attended	Date Attended
1.	Prof.Tabitha Janumala	Two weeks FDP on Work Place Ergonomics- perspective, principles and practices	1 <sup>st</sup> to 13 <sup>th</sup> July, 2019
2.	Prof. S. Venkatesh	Faculty Development Program on Safety Instrumented Systems	2 <sup>nd</sup> July to 2 <sup>nd</sup> August 2019
3.	Prof.Tabitha Janumala	Six- day Faculty FDP on Advanced Functional Materials	5 <sup>th</sup> to 10 <sup>th</sup> August 2019
4.	Prof. S. Venkatesh	AICTE Sponsored six days Short Term Training Programme on 'Creating and Sustaining an Ethical Workplace Culture'	19 <sup>th</sup> to 24 <sup>th</sup> August 2019
5.	Dr. Sandesh R. S	Two days Workshop on Design Thinking	30 <sup>th</sup> Sep & 1 <sup>st</sup> Oct 2019
6.	Dr. Kendaganna Swamy	Two days Workshop on Design Thinking	30 <sup>th</sup> Sep & 1 <sup>st</sup> Oct 2019

## 9. Publication details of faculty and students.

1. Namita Pritam Shah, “ One’s Complement Subtraction (OCS)algorithm proposed for re- coding of integer in ECDH protocol for WhatsApp message encryption and decryption”, 3<sup>rd</sup> International Conference on Cloud and Big Data Computing, Oxford, UK, August 28-30,2019.
2. Prof.Veena Divya K, Devanshu Mukerjee, Somali Roy and Vidyashree, “A Novel approach towards human posture estimation to review Lumbar Lordosis”41st Annual International Conference of the IEEE Engineering in Medicine and Biology Society(EMBC),Berlin, Germany, 23<sup>rd</sup>-27<sup>th</sup> July,2019.
3. Vidyashree, “Waste Segregation using Artificial intelligence”, International Journal of Scientific and technology research, Volume 8, Issue 12, December 2019.
4. Vidyashree, “An Update on Effective Patient monitoring and Diagnosis of Diseases in the Current Scenario”, Part of the studies in Computational intelligence book series (SCI,Vol 823).

## 10.Placement Details:

The total number of students admitted for 2018-19 batch are 52. The eligible students for the placement are 44. The placement details are as shown in table 5.

Table 5: Placement details of the academic batch 2019- 20

Sl. No	Name of the Organization	No. of 1st Offers	Domain	Package (LPA)	Offer Date
1	Airbus	3	Business Operations, Software Developer, Simulation Engineer	10.00	August 7 <sup>th</sup>
2	Robert Bosch	6	Core	5.50	August 23 <sup>rd</sup>
3	Telstra	1	Software Developer	8.50	August 24 <sup>th</sup>
	Aurigo	1	Product Quality Engineer	8.50	August 25 <sup>th</sup>
4	O9 Solutions	2	Consultant	8.25	August 26 <sup>th</sup>
5	LTI	3	Consultant	6.50	August 30 <sup>th</sup>
6	MIQ Digital	1	Business Analyst	11	

7	Kuliza	1	Associate Engineer	8.25	September 15 <sup>th</sup>
8	KPMG	1	Risk Analyst	4.8	September 20 <sup>th</sup>
9	KPIT	3	Graduate Engineer Trainee	5.5	September 24 <sup>th</sup>
10	The MATH Company	1	Analyst	4.5	September 25 <sup>th</sup>
11	Infosys	3	Graduate Engineer Trainee	3.6	September 27 <sup>th</sup>
12	Cognizant	1	Graduate Engineer Trainee	4	September 28 <sup>th</sup>
13	Rakuten	1	Technical Intern	8	October 14 <sup>th</sup>
14	PWC	7	Technology Consulting	4.5	October 18 <sup>th</sup>
15	L&T Tech Services	2	Graduate Engineer Trainee	4	October 30 <sup>th</sup>
16	Log 9 Materials	1	Business Operations Analyst	7	November 15 <sup>th</sup>
17	Optum Consulting	1	Technology Consulting	7.78	November 15 <sup>th</sup>
18	LAM Research	1	Technology Intern	13	November 25 <sup>th</sup>
19	Headout	1	Associate Operations	5	December 4 <sup>th</sup>
20	IFB Global	1	Graduate Engineer Trainee	6.5	January 23 <sup>rd</sup>
	No. of Offers	42		Average: 6.25	
	Total No. Of Multiple Offers:	5	Total strength- 52 Eligible for placement-44 No.of students placed:37		

## 11. Hospital Visit:

The 3<sup>rd</sup> Semester PG Students of Biomedical Signal Processing and Instrumentation had visited the Sita Batheja Hospital to explore the imaging tools used in the operation theatre while spine operation was performed by Dr.Raghavendra, Spine surgeon. The students were exposed to the various bio materials used in the manufacture of screws, pins and Fracture plates used in spine surgery.



## Gallery Section



Students addressed by the Alumni of EI Department



Visit to flood affected areas Siruguppa and Jamakandi, supported with food, clothes and cattle feed by Dr.Prasanna Kumar S.C. and team



VTU Intercollegiate-Bengaluru South Zone Throw Ball (women) Tournament, 2019-20



Inaugural function of first year students





Parents teachers meet, 2019



Sports day celebration, 2019



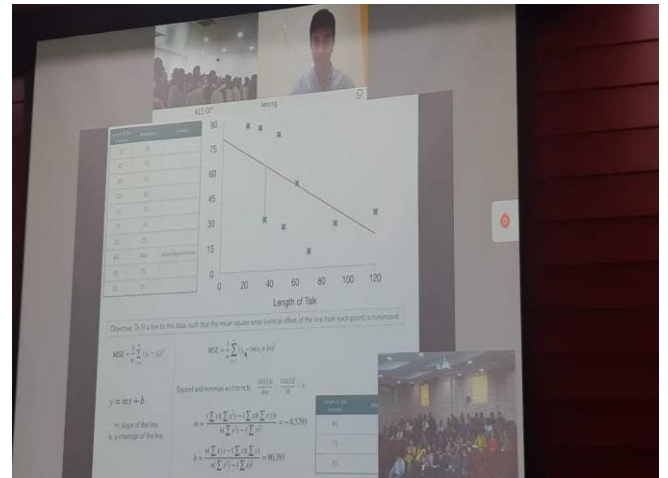
As a part of AICTE 100- Points Activity for 3<sup>rd</sup> sem, visited 2 Schools in Mkerenahalli and Kakaramanahalli , Bidadi.



VTU Inter collegiate Yoga competition by Soundarya and Likitha



NI LabVIEW Workshop



Video Conference by our alumni Anurag Shivaprasad