

## Dr. Krupa Rasane as a resource person

Title Of Lecture	Title Of Conference/Seminar	Organized By	College Level
Communications Protocols in IOT	Applications of Advanced Embedded Systems, 19th August 2017.	Shri Vasant Rao Potdar Polytech	State
Importance of Local Clubs and Student Associations	Inaugural Function, 10/8/2016	Shri Vasant Rao Potdar Polytech	College
Women Empowerment	International; Womens Day Celebration, 8th March 2016	JCE Polytechnic	College
Advanced Microcontrollers	Architecture, Programming and Applications of Microcontroller 18th August, 2016	Electronics Department, Shivaji	Regional
Benefits of being an IEEE Society Member	E-Resource for Academic Excellence and Research, 27/10/2016	BLDEA'S V.P.Dr.P.G.P.H. College	State
WSN and Communication Technology	Wireless Sensor Networks and Technology: Advances and Challenges, 15th March 2017	PDA College of Engineering	TEQIP, National

## IEEE STRATEGIC PLAN

### MISSION

We foster technological innovation and excellence for the benefit of humanity.

### VISION

We will be essential to the global technical community and to technical professionals everywhere, and be universally recognized for the contributions of technology and of technical professionals in improving global conditions.

### CORE VALUES

The following list of core values reflects what is truly important to us as an organization:

- Trust: being a trusted and unbiased source of technical information and forums for technical dialog and collaboration.
- Growth and Nurturing: encouraging education as a fundamental activity of engineers, scientists, and technologists at all levels and at all times; ensuring a pipeline of students to preserve the profession.
- Global Community Building: cultivating active, vibrant, and honest exchange among cross-disciplinary and interdisciplinary global communities of technical professionals.
- Partnership: promoting a culture of respect for the employee and volunteer, valuing contributions at all levels of the organization, investing in training and development to enhance capabilities, empowering individuals to make a positive difference, and building a membership organization based on a strong volunteer-staff partnership to serve the profession.
- Service to Humanity: leveraging science, technology, and engineering to benefit human welfare; promoting public awareness and understanding of the engineering profession.
- Integrity in Action: fostering a professional climate in which engineers and scientists continue to be respected for their exemplary ethical behavior and volunteerism.

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# Jain College of Engineering, Belagavi

(Approved by AICTE, New Delhi, Affiliated to VTU, Belagavi and Recognized by Govt. of Karnataka)

## Department of Electronics & Communication Engineering



# SPECTRUM-2018



### MESSAGE FROM DIRECTOR

I am happy to see that, the Department of ECE is bringing out 'SPECTRUM-2018'. I wish you all the best to students and staff.

Prof. R. G. Dharwadkar

### MESSAGE FROM MAGAZINE COMMITTEE

It gives us immense joy and satisfaction to finally introduce our Department magazine "SPECTRUM-2018". So this time we have made an attempt to bring out the talent concealed within our student community. This issue includes events, students and faculty achievements, host of other things. A lot of effort has gone into the making of this issue. The best thing about this issue is that it represents the creative side of JCE ECE students and staffs creativity. We hope you will enjoy by reading this issue as much as we have enjoyed making it.

Prof. Prashant Hanasi

### ABOUT THE DEPARTMENT

Established in the year 2010, The Department of ECE enjoys a respectable stature in Academia. The department has always been on a progressive path as it aims to produce globally competitive and socially sensitized engineering graduates to bring out quality in the frontier areas. The highly experienced and dedicated faculty members who have a strong commitment towards providing quality engineering education in the domain of ECE, try to impart the curriculum in addition to courses to filling of the Industry-Academia gap. The laboratory facilitates collaborative ventures with industries by effective teaching learning process. Apart from classroom teaching there are frequent lectures delivered by renowned speakers drawn from industry and R & D establishments. Supplementing the regular curriculum the students are encouraged to participate in the R & D by involving themselves in the sponsored projects with the help of the faculty members of the Department.

### Vision of Department:

To impart excellent technical education for developing ethically sound and globally competent electronics engineers.

### Mission of Department:

1. To provide a creative environment through structured teaching - learning process.
2. To achieve academic excellence.
3. To strive towards efficient industry-institute interaction.
4. To serve the needs of the society through R&D activities.
5. To inculcate self learning attitude, entrepreneurial skills and professional ethics.

### MESSAGE FROM PRINCIPAL

I am very happy to know that the department of electronics and communication of our college is bringing out it's first volume of department magazine 'SPECTRUM-2018'. The contributions of staff and students in the magazine in appreciable.

Dr. K. G. Vishwanath

### MESSAGE FROM HOD

The Department of Electronics & Communication Engineering (ECE) has consistently maintained an exemplary academic record with good admission. The greatest asset of the department is its highly motivated, learned and dedicated faculty with more than adequate infrastructure. The available diversity of expertise of the faculty with the support of the other staff prepares the students to work in global multicultural environment. The graduates of the Electronics & Communication Stream have been selected by some of the world's leading corporations & as well as by most of the leading Indian counter parts. We hope that we will continue to deliver our best to serve the society and mankind. It is also expected that our students will continue to pass-on the skills which they have developed during their stay at this department to whole of the world for a better society. **Let us remember: One book, one pen, one child, and one teacher can change the world."**

Dr. Krupa Rasane

## Department Activities (2017)

### 1. WOMEN'S DAY

JCE IEEE and Women in Engineering (WIE) Student Branch in association with the Departmental Staff and Student Association ECHO of Electronics and Communication Engineering department of Jain college of Engineering, Belagavi, celebrated International Women's day on March 8th 2017. On this day the new office bearers for IEEE student branch for 2017 were also inducted. The chief guest Dr.Madhuri Dixit, MS(opth), consultant Eye surgeon, Sri Eye Care and Laser Centre, Belagavi, spoke on how young women can pursue her career through her passion and perseverance.



### 2. PRINTED CIRCUIT BOARD WORKSHOP

A printed circuit board workshop was scheduled on 17-18TH MARCH, 2017 by IEEE JCE SB-16 as a part of IEEE. The session mainly focused on 1.Schematic design 2.Component footprint design 3.PCB design and printing 4.Integrated library design 5.Itching of PCB. PCB designing is one of most emerging field in electronics today's era for students of electronics this is a good field to start their career. 120 students had participated in workshop. workshop was conducted by resource person Prof.Maheshkumar Patil. 17-18th MARCH 2017



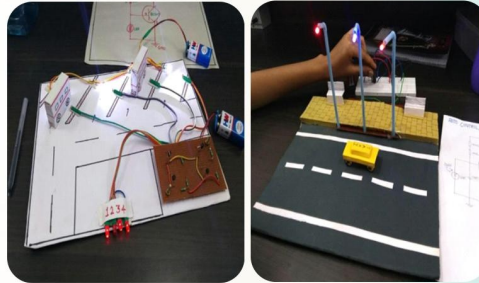
### 3. IMAGE PROCESSING WORKSHOP

A two day workshop on IMAGE PROCESSING was scheduled on 24th & 25th March 2017 by IEEE JCE SB-17. The session mainly focused on creating awareness among the participants about the techniques that can be used for image processing and know its applications. Various sessions of this workshop are engaged by prof.Ganesh, prof.Vinay.Sangoli, prof.Nishant Joshi & prof.Sandeep M.Prof. V R Bagali coordinated to conduct the workshop.



### 4. HOBBY PROJECT EXHIBITION

A HOBBY LEVEL PROJECT EXHIBITION was organized on 7th April 2017 by Jain College of Engineering, Belagavi. This event consisted of encouraging all the participants to execute their ideologies and knowledge and produce it in the form of a project. Each participating team had to show communication skills, knowledge, ideas and its execution depending on their projects. The session mainly focused on creativity and interest among the participants about the new emerging technology can be used in our daily life.



### 5. ELECTRONICS PREMIER LEAGUE

The ELECTRONICS PREMIER LEAGUE was scheduled on 24th March, 2017 by IEEE JCE. The EPL was conducted in the college ground with the active participation of the teams and the in-charged faculty members. The winning team was felicitated by the principal and the guest.



### 6. LabVIEW Awareness Program

A Labview awareness session was held on 8th September at Jain college of engineering Belgavi by the IEEE student branch of jce. The session was conducted by Mr. Sunil Kumar of VI Solutions Bangalore. The session conducted, showed the various applications of Labview and the ease of preparing a project using this software.



### 9. GATE Awareness

JCE IEEE student branch, Department of Electronics and Communication, Engineering of Jain College of Engineering, Belagavi organized GATE awareness event in our college on 27th Sept 2017. It started with promoting IEEE through power point presentation. We enunciated this GATE awareness program to three departments viz Electronics and communication, 5th and 7th sem students.



### 7. FRESHER'S

JCE IEEE SB and Department of E&C Engg. of Jain College of Engineering, Belagavi conducted NOVATA FIESTA 2017 freshers welcome function on 13/09/2017. Head of E&C department and IEEE branch Counselor Dr. Krupa R. Rasane welcomed the august gathering and gave Welcome speech. The chief guest for the function Mrs. Angeli Pandit, counsellor @ MIND- FUNDA BELAGAVI, encouraged the students and delivered talk on stress management. ECHO coordinator Prof V R Bagali mentioned academic events plan for the year 2017. The Principal and Director Dr. K G Vishwanath presided over the function and gave the presidential remarks. Student Secretary, Ms. Akshata Kulkarni proposed the vote of thanks.



### 10. LabVIEW Workshop

A Labview workshop was conducted by the IEEE JCE SB for a duration of 5 days. It was a complete hands on training session for the participants and a very interactive session. Labview stands for Laboratory Virtual Instrument Engineering Workbench, which is a system-design platform and environmental development for visual programming language from National Instruments (NI). The resource person who graced this occasion with his presence was Mr. Sunil Kumar of VI Solutions, Bangalore.



### 8. Robo Soccer

This event was organized by Prof. Ganesh Awati and Prof.Sushma Kamat for 5TH semester students on . Total 12 teams were participated in this event. The task given to students in this event was to Build a soccer playing robot skilled enough to overcome obstacles placed around the ball and make a goal with least possible time. The robot's ball handling skills in addition to the controller's skill and precision were tested. Each round had different judging criteria (overall points, number of goals scored, and time taken) for getting through the next round.

### 11. IEEE Day

JCE IEEE student branch, Department of Electronics and Communication, Engineering of Jain College of Engineering, Belagavi celebrated IEEE day event in our college on 4th October 2017. It started with cake cutting ceremony.



### 12. Robotics Workshop

A workshop on Robotics was scheduled on 13th and 14th October 2017 by IEEE JCE SB specially for 3rd Semester Students to get basic knowledge of robotics and to start designing and assembling a level 1 wired robot. A total of 19 teams (76 students) had participated in the workshop. The workshop was conducted by resource person Prof. Ganesh Awati and Prof. Sushma Kamat.



### 13. INDUSTRIAL VISIT to NOKIA 2017

An Industrial Visit to Nokia, Bangalore was scheduled on 13th October, 2017 by IEEE Bangalore Section as a part of IEEE Elevate Program Industrial Series. The total number of students who could participate in this event was only 40 and we were fortunate to be one of them.



### 14. IEEE XTREME PROGRAMMING COMPETITION.

An IEEE XTREME PROGRAMMING COMPETITION was scheduled on 14th October, 2017 by IEEE BANGLORE SECTION by IEEE XTREME Ambassadors Team. The session mainly focused on programming and coding skills. IEEE extreme programming competition being the World's largest coding competition encouraged everyone to participate.



### 15. Workshop on Raspberry Pi using PYTHON:

Workshop was conducted on 3rd & 4th November 2017. Participants were then introduced to PYTHON language. Also, an android app to learn more about PYTHON was shared. Participants were given plenty of opportunities to try out the skill/method immediately. This practical aspect helped them to clarify doubts and also got valuable input from other participants. Participants enjoyed learning PYTHON over any other software languages they came across. Main reason is PYTHON is very simple and Raspberry Pi Foundation recommends using PYTHON.

## CONGRATULATIONS

Academic achievers :

- 1) Vaman Kulkarni (4<sup>th</sup> Sem)
- 2) Vinay Pai (6<sup>th</sup> Sem)
- 3) Shrinidhi Patted (8<sup>th</sup> Sem)

## CONGRATULATIONS

*Prof. Shridhar Iyer is honoured with Doctor of Philosophy by Delhi University*

## Student's Achievements

### Winners list in various events

SL NO.	NAME	COLLEGE/ INSTITUTE	PLACE	EVENT	PRIZE	DATE
1	Pratik Badagavi	SGBIT	BELAGAVI	SAMVEEKSHANA-2K17	1	17-18th FEB 2017
2	Abhishek Chalke	KLECET	BELAGAVI	INVENTO 2K17(Art-O-Graphy)	1	26-28th April 2017
3	Pratik Badagavi	KLEIT	HUBBALLI	TECHNO PAPERIX ADVITIYA-17	1	6 & 7th OCT-2017
4	Sheepa Nanadi	KLEIT	HUBBALLI	TECHNO PAPERIX ADVITIYA-17	1	6 & 7th OCT-2017
5	Moin M N	KLEIT	HUBBALLI	ADVITIYA-17(Techno mania)	1	6 & 7th OCT-2017
6	Moin M N	KLEIT	HUBBALLI	ADVITIYA-17(Electro-Trivia)	1	6 & 7th OCT-2017
7	Mohan G	KLEIT	HUBBALLI	ADVITIYA-17(Electro-Trivia)	1	6 & 7th OCT-2017
8	Mohan G	KLEIT	HUBBALLI	ADVITIYA-17(Techno mania)	1	6 & 7th OCT-2017
9	Moin M N	KLECET	CHIKODI	PRAXIS 2K17 (Technical Quiz)	2	10-11th NOV 2017
10	Mohan G	KLECET	CHIKODI	PRAXIS 2K17 (Technical Quiz)	2	10-11th NOV 2017

### Students participated in conference/project exhibition

SL NO.	NAME	COLLEGE/ INSTITUTE	PLACE	CONFERENCE/ PROJECT	DATE
1	Moin Nargund	RV COLLEGE	Bangalore	SRISHTI-17, State level Project Exhibition	26-28th May 2017
2	Naveen M	RV COLLEGE	Bangalore	SRISHTI-17, State level Project Exhibition	26-28th May 2017
3	Mohan G	RV COLLEGE	Bangalore	Shrushti 2017 State level project exhibition	26-28th May 2107
4	Omkar Majurkar	RV COLLEGE	Bangalore	SRISHTI-17, State level Project Exhibition	26-28th May 2017
5	Pratik Badagavi	SVCE	Bangalore	2nd IEEE International Conference on (RTEICT)-2017	19-20th may 2017
6	Pratik Badagavi	GSSSIET	MYSORE	ICECCOT-2017	15-16th DEC 2017
7	Shipha Nanadi	GSSSIET	MYSORE	ICECCOT-2017	15-16th DEC 2017

## Faculties Achievements

RESEARCH PAPERS PUBLISHED BY FACULTY IN JOURNALS

Sl. No.	Name of the faculty	Title of Paper	Publication citation
1	Nishant Joshi D	Range adjustable hybrid multi path routing algorithm for WSNs	International Journal of Sensor Networks, 25, 2, Sep 30, 2017, 71-85
2	Nishant Joshi D	Energy Efficient and Reliable Data Collection in Wireless Sensor Networks	Turkish Journal of Electrical Engineering & Computer Sciences, (SCI-E Journal), 26, 1, Jan 26, 2018, 138-149
3	Sridhar Iyer	Investigation of Cost, Power and Spectral Efficiency in Fixed- and Flexi-Grid Networks	Journal of Communications and Information Networks, Springer, vol. 2, no. 3, pp. 92-106, 2017.
4	Sridhar Iyer	Effect of Modulation Format's Transmission Reach on Spectrum Utilization in Elastic Optical Networks	International Journal of Information Technology, Springer, vol. 9, no. 4, pp. 335-344, 2017.
5	Sridhar Iyer	Investigation of Launch Power and Regenerator Placement Effect on the Design of Mixed-Line-Rate (MLR) Optical WDM Networks	Photonics Network Communications, Springer (OnlineFirst), 2017. DOI: 10.1007/s11107-017-0714-z
6	Sridhar Iyer	Effect of Channel Spacing on the Design of Mixed Line Rate (MLR) Optical Wavelength Division Multiplexed (WDM) Networks	Ahead of Print (Journal of Optical Communication, De Gruyter, 2017. DOI: <a href="https://doi.org/10.1515/joc-2016-0127">https://doi.org/10.1515/joc-2016-0127</a>
7	Sridhar Iyer	Performance Benefits of Regeneration Flexibility and Modulation Convertibility in Elastic Optical Networks	Telecommunication Systems, Springer, 2017. DOI: 10.1007/s11235-017-0378-0
8	Sridhar Iyer	Comparison of Cost, Power Consumption and Spectrum Utilization in Protected Fixed- and Flexi-Grid Optical Networks	The Institution of Electronics and Telecommunication Engineers (IETE) Journal of Research, 2017. DOI: 10.1080/03772063.2017.1369371
9	Sridhar Iyer	Solutions to Large Cases of RSA with Transceiver and Regeneration Allocation (RSAWTCRA) Problem in Elastic Optical Networks	Photonics Network Communications, Springer (Online First), 2017. DOI: 10.1007/s11107-017-0726-8