

E-NEWS LETTER, VOLUME 2, 2016

SPECIAL POINTS OF INTEREST

Messages:

Director - SJEC Assistant Director - SJEC

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·Mr Karthik <u>Ma</u>dhyastha N.

Message

Students

· Photos: Outgoing

· Photos: Faculty

- · Ms Ramya M.
- · Mr Swaraj Dominic Lewis

Messages

Message from the Director

Among all the classic virtues embodied by various characters in the Harry Potter books, courage is particularly important. Harry displays this specific virtue in a consistent and dramatic way. He is a young man who is very sensitive to danger and is as susceptible to fear, anxiety, and jittery nerves as any of us could ever be. And yet, when confronted with the most challenging dangers of his day, he is always able to step up and do the right thing. How does he do it? And what can the rest of us learn from his experience?



Harry Potter's 5 Steps to Courage are:

- · Prepare for the challenge.
- · Surround yourself with support.
- Engage in positive self-talk.
- · Focus on what is at stake.
- Take appropriate action.

By doing these five things well we can all position ourselves to summon the courage we need.

I am truly delighted to note the various accomplishments of the Mechanical Engineering Department of SJEC. I congratulate the Head of the Department Dr Sudheer M. and the editorial team of the E-News letter of Mechanical Department. May this news letter infuse courage to face the challenges, may it bring in a lot of support to stay focussed to the future accomplishments at SJEC.

My best wishes to Mechanical Department in all its future endeavours.

Rev. Fr Joseph J. Lobo

Message from the Assistant Director

Greetings to all.

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Happy to note that the Mechanical Engineering Department is bringing out its 2nd volume of the Departmental E-News letter. This issue very well testifies that the department and the Faculty have taken lot of initiatives in molding the students to be better Engineers and human beings. The technical talks, lectures, seminars, interactions, exposure to the industry etc have contributed to the growth of the students. The hard work and the efforts of the Department may bear much fruit in future. Estee Lauder says, "I NEVER DREAMED ABOUT SUCCESS. I WORKED FOR IT." So lets always work for the success. All the best.



Rev. Fr Rohith D'Costa



Messages:

- · Principal SJEC
- Vice Principal SJEC
- · HOD

St Joseph Engineering College Vamanjoor, Mangaluru Department of Mechanical Engineering

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Message from the Principal

I am very much pleased to write this message for the "e-News letter 2016" of the Department of Mechanical Engineering. This is the largest department in the college in terms of floor space, man power, student strength and the biggest number of achievers in any event that happens in the college. Many good things happen in the department worth reporting. Along with "Torque" the student association of the department, the recent addition of "SAE-Collegiate club" has added greater strength by way of putting the students to test their mettle in designing, building, testing and racing the automotives, an activity unparalleled in the history of the department and a wonderful opportunity to the students to apply learning to practice. As we move forward many good things are awaited to happen and more good news to report.



We are looking forward for the release of the news letter and thank all the contributors to this letter. The e-News letter shall reach all in the department in particular and across the college in general to inspire them the spirit of Engineering.

I congratulate the HOD, the faculty members and the students of the department in bringing out the e-News letter.

Dr Joseph Gonsalves

Message from the Vice Principal

Hearty Congratulations to the Department of Mechanical Engineering on bringing out yet another issue of their Departmental Newsletter. Tony Robbins once said "There are only two options, make progress, or make excuses!" Clearly, the Mechanical Engineering Department has chosen to make progress a recurring theme.

This newsletter that you are reading is a product of intellectual minds, wrapped with love, care and concern. That is why it is such a delight to congratulate everyone involved with the newsletter for the excellent job done.

With best wishes,

Dr Rio D'Souza

Message from the HOD

E-news letter 2016 provides a panoramic view of the activities and achievements of our students and staffs during last one year. Apart from teaching, learning and research, the Department of Mechanical Engineering is also actively involved in co-curricular and extra-curricular activities. The Department has continued its rich tradition of maintaining the academic excellence and providing congenial environment for the overall development of students. I feel confident that the department is progressing in the right direction with the excellent support of SJEC Management , Principal, Vice Principal and committment of faculty and supporting staff.









- Department Vision
- Department Mission
- Program
 Educational
 Objectives (PEOs)
- Program Outcomes (POs)

St Joseph Engineering College Vamanjoor, Mangaluru Department of Mechanical Engineering

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Department Vision

To be a value based department committed to excellence in teaching and research, nurturing technically competent and socially responsible engineering professionals.

Department Mission

- Providing state-of-the art technical knowledge in Mechanical Engineering.
- Promoting research, education and training in frontier areas of Mechanical Engineering.
 Facilitating faculty development through quality improvement programmes.
- Initiating collaboration with industries, research organizations and institutes for internship, joint
- research and consultancy.
 Instilling social and ethical values in students, staff and faculty through personality development
- programmes.
 Developing innovation in engineering and technology in order to provide beneficial service to the
- local community.

Program Educational Objectives (PEOs)

- 1. Have sound foundation in mathematical, scientific and engineering concepts necessary to formulate, solve and analyze engineering problems.
- 2. Possess the ability to work as part of teams on multidisciplinary projects.
- 3. Excel in professional ventures with successful careers in industry that meet the needs of national and multinational organizations.
- 4. Exhibit qualities of lifelong learning, professional ethics and social concerns.

Program Outcomes (POs)

- a) Apply the basic knowledge of mathematics, science, thermal, design, manufacturing engineering.
- b) Identify, formulate and solve mechanical engineering problems.
- c) Design a mechanical system that meets desired specification and requirements.
- d) Design and conduct experiments, interpret and analyze data and report results.
- e) Apply modern engineering software tools and equipment to analyze mechanical engineering problems.
- f) Apply engineering solutions in global and societal context.
- g) Understand the impact of engineering on society and demonstrate awareness of contemporary issues.
- h) Understand the professional and ethical responsibilities.
- i) Work in a team of core competence or multidisciplinary teams.
- j) Communicate effectively in both verbal and written forms.
- k) Understand the values of life-long learning.
- l) Apply financial and project management skills in their professional ventures.
- m) Exhibit leadership skills and scientific temperament in decision making on personal and professional issues.



St Joseph Engineering College Vamanjoor, Mangaluru

Department of Mechanical Engineering

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Department Activities

SPECIAL POINTS OF INTEREST

- •Inauguration of the Students' association "TORQUE"
- •Engineers Day Celebration
- Extra-curricular Activities



Inauguration of the Students' Association "TORQUE":

The Department of Mechanical Engineering at SJEC inaugurated its Students' Association – TORQUE, for the current academic year, on Tuesday, August 25th, 2015, at 2:30 pm in the College Auditorium, Academic Block II. Mr P. J. Rai, General Manager – HR, Mangalore Chemicals & Fertilizers Limited was the Chief Guest of the programme.



The inaugural function was followed by a Technical talk on the topic "Success Formulae for Young Executives" by the Chief Guest and games for the students of mechanical engineering was organized to encourage their active involvement in the Torque association.







Engineers Day Celebration:

On 26th September 2015, student chapter "Torque" celebrated Engineers day. The guest of honor was Dr R.K. Yaji, Former principal of SJEC.



Activities like Mr Machinist, Automotive biography, CAMD modelling, sketch it, Technical quiz and PPT presentations were conducted for the students.



CAMD-Modeling - was conducted to evaluate the designing skills & innovation in the budding engineers using Solid Edge ST6 software for design.





- Extra-curricular Activities
- •eTime 2015

St Joseph Engineering College Vamanjoor, Mangaluru Department of Mechanical Engineering

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Department Activities (Engineers Day 2015)

Automotive Biography – was conducted to benchmark the knowledge of students in advancements in the automobile field through events like Crossword puzzle, vehicle's specifications etc.



Technical Quiz – was conducted to test the knowledge of engineers in general science as well as their respective technical field.



Poster Presentation – was conducted over the topic "Recent Advances in Mechanical Engineering".

Sketch-IT – was conducted to examine the talent of drawing & sketching of a 3D- picture of any machine related to mechanical engineering.



PPT presentation – was conducted to improve the presentational and analytical skills of the students. The topic was "Recent Advances in Mechanical Engineering".



eTime 2015

The Department of Mechanical Engineering organized eTIME-2015, Faculty Development Programme (FDP) on 7th August 2015 and National Conference on Emerging Trends in Mechanical Engineering, on 8th August, 2015.

The sessions were conducted in the seminar halls including Spoorthi Conference Hall in 7th Floor of Academic Block – III. A total of 58 papers were presented in four parallel sessions, on various topics under Mechanical Engineering.

Delegates included Faculty Members from various Engineering Institutes across the country and also Researchers and Scientists from reputed Industries and R&D Institutions.

The FDP and Conference were successful in facilitating interactions between researchers on various topics. The event received good participation and feedback from the delegates.

All papers selected for presentation, have been published by Scientific & Academic Publishing – United States in one of the following three International Journals depending on the field of research:

- American Journal of Material Science
- Journal of Mechanical Engineering and Automation
- Energy and Power







Vamanjoor, Mangaluru Department of Mechanical Engineering

St Joseph Engineering College

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Department Activities

SAEINDIA-SJEC Collegiate Club was inaugurated on 5th April 2016 by the Chief Guest Mr. Munirathnam, President, SAEINDIA Bangalore Division. The chief Guest delivered the inaugural address on the topic Disruptive Approach in Automobile and Aerospace Sectors. Mr K.P. Murthy, Vice President, SAEINDIA Bangalore Division and Dr Joseph Gonsalvis, Principal, SJEC were the guests of honor. Rev Fr Joseph Lobo, Director SJEC, presided over the function. During the program, the first batch of office bearers of SAEINDIA – SJEC Collegiate Club received the SAE membership cards and the logo for the Collegiate Club was also unveiled to mark the official inauguration of SAEINDIA – SJEC Collegiate Club.

The inaugural function was followed by a technical talk by Mr Purushotham Joshi, Business Development Manager at SAEINDIA Bangalore Session on "Design and Manufacturing of All Terrain".





NDT Workshop: One-day workshop on "Non Destructive Testing (NDT)" for final year mechanical engineering students was organized in association with V&G Industrial Testing Laboratory Pvt. Ltd. Baikampady on 12th April 2016. Mr Krishna Hegde, General Manager, Technical Services, MRPL, Mangalore and Mr Ganesh Tahashildar from V&G Industrial Testing Laboratory Pvt. Ltd. Baikampady delivered talk during the workshop. A visit to the



V&G Industrial Testing Laboratory Pvt. Ltd. Baikampady was also organized to witness the different NDT methods for the benefit of the students.

Study Groups: Study groups with focus on specific area of interest in Mechanical Engineering are formed in the year 2015-16. The group involves a mentor and interested faculty and student members. The study group mainly acts as a discussion forum for members of interests. The study group also intends to promote study in specialized topics in the Department by engaging in additional classes, invited lectures, and workshops. The group will identify and define research projects on the areas of interests for both UG and PG students. The group will also arrange faculty development programs to promote research on the areas of interests in Mechanical Engineering.

Sl No	Name of the Study Group	Mentor
1	Clean Energy Research Group	Dr Purushothama Chippar
2	Nano Particle Study Group	Mr Binu K G
3	Composites Study Group	Dr Sudheer M
4	Engine Study Group	Mr Prashanth Kumar

SPECIAL POINTS OF INTEREST

- · SAE India
- · NDT Workshop
- · Study Groups



Staff Achievements

St Joseph Engineering College Vamanjoor, Mangaluru

Department of Mechanical Engineering

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Staff Achievements

Integra 2015: Faculty Development Programme on Preparation for Accreditation, held on 20th and 21st of July 2015 in the Spoorthi Conference Hall, was co-ordinated by the Faculty members of Department of Mechanical Engineering.

Dr Shreeranga Bhat Associate Professor in the Department of Mechanical Engineering has been awarded Doctor of Philosophy during 2016 by the Visvesvaraya Technological University, Belgaum for his research thesis titled "A Study on Implementation of Lean Six Sigma Strategies to Improve the Performance of a Service Sector".

Dr Shreeranga Bhat has been honored with the 2015 Highly Commended Paper Award by the International Journal of Lean Six Sigma from Emerald Publishers – UK, for his research article titled "Application of Six Sigma Methodology in a Small Scale Foundry Industry" published in Vol 5 No 2, pp. 193-211, 2015.

Dr Sudheer M Professor and HOD is nominated as the member of Governing Council of SJEC for the period 2015-18.

Dr Sudheer M is nominated as member of Board of Examiners (BOE) for M.Tech (Machine Design) course by NMAMIT, Nitte for the year 2015-16.

Dr Sudheer M has become the life time member (L-1639) of professional body INDIAN SOCIETY FOR ADVANCEMENT OF MATERIALS & PROCESS ENGINEERING (ISAMPE) Bangalore chapter from 1st March 2016.

Dr Sudheer M delivered a technical talk on "Composites and their innovative applications" at KVGCE Sullia on 06 Feb 2016.

Social Responsibility: Mr Sharun Mendonca, Asst. Professor in the department conducted theory classes in the subject Air Conditioning and Refrigeration for students of RUSEMP Community College, Pakshikere. RUSEMP has been training the poor, school dropout and rural youths in various village trades with the goal "Employment for all".

Mr Binu K.G. Associate Professor in the Department of Mechanical Engineering at SJEC has secured the Best Paper Award for his research paper titled "Dynamic Performance Characteristics of Finite Journal Bearings Operating on TiO2 based Nanolubricants" at the 2nd International Conference on Computational Methods in Engineering and Health Sciences 2015 held on 19th and 20th December, at University Putra Malaysia, Malaysia. The paper is also co-authored by Mr. Yathish Kumar K, Assistant Professor in the Department of Mechanical Engineering at SJEC.

Dr Purushothama Chippar has delivered a talk on "Patents" on 05.12.2015 at the Research Center in the Department of Mechanical Engineering at SJEC.

Dr Raju K has delivered a technical talk on "Art of writing a research article" on 07.01.2015 at the Research Center in the Department of Mechanical Engineering at SJEC.

Dr Purushothama Chippar has chaired a technical session in e- TIME 2015, National Conference on Emerging Trends in Mechanical Engineering – 2015 held on 08.08.2015 in the Department of Mechanical Engineering at SJEC.

Dr James Vader has chaired a technical session in e-TIME 2015, National Conference on Emerging Trends in Mechanical Engineering – 2015 held on 08.08.2015 in the Department of Mechanical Engineering at SJEC.

Dr Shreeranga Bhat has delivered Lecture on "OBE and New SAR Format for Tier-II Institutions" during 'Integra 2016'- Faculty Development Programme on Preparation for Accreditation, held on 19 to 22nd of January 2016, at St Joseph Engineering College, Mangalore, co-organized by Department of Electronics and Communication Engineering.

Dr Purushothama Chippar obtained a research grant of 20 lakhs for his project titled "Experimental and Numerical Analysis for the Development of Metal Hydride based Hydrogen Storage System" under the scheme KFIST Level – I by VGST, Government of Karnataka.



Staff Publications

St Joseph Engineering College Vamanjoor, Mangaluru

Department of Mechanical Engineering

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Staff Publications

a) National Journals:

Patent Filed by Prathviraj H, Asst. Professor, on title "Automated domestic gas stove with manual and servo valve controlled, independently flooded concentric gas burner" has been published in the Official Journal of Patent Office, India, Issue No 26/2015 dated 26.06.2015.

b) International Journals:

- Shreeranga Bhat, E.V. Gijo, N. A. Jnanesh, (2016) "Productivity and Performance Improvement in Medical Records Department of a Hospital: An Application of Lean Six Sigma", International Journal of Productivity and Performance Management, Vol. 65, No. 1, pp. 98-125
- Shreeranga Bhat, Anil Melwyn Rego, Jnanesh N. A., Rahul A. D'souza (2015), "Application of Operations Research Technique to Improve the Performance of the HID of a Hospital", Journal of Mechanical Engineering and Automation, Vol. 5, No. 3B, pp. 81-83.
- E.V. Gijo, Shreeranga Bhat, N.A. Jnanesh (2015), "Application of six Sigma Methodology in a small scale foundry industry", International Journal of Lean Six Sigma, Vol 5 No 2, pp. 193-211.
- Sudheer M., Ashwin Shetty, Shashiraj Somayaji,
 "Finite Element Investigations of Temperature Distribution in Fins with Circular Perforations",
 American Journal of Materials Science 2015,
 5(3C): 157-161.
- Sudheer M, Pradyoth K. R, Shashiraj Somayaji, "Analytical and Numerical Validation of Epoxy/Glass Structural Composites for Elastic Models", American Journal of Materials Science 2015, 5(3C): 162-168.
- Dayanand M. Goudar, V. C. Srivastava, G. B. Rudrakshi, K. Raju S. N. Ojha (2015), "Effect of Tin on the Wear Properties of Spray Formed Al-17Si Alloy", Transaction of Indian Institute of Metlas (THM) Vol. 68 (1), pp. 3-7.
- T. S. Shanon, N. Ahmed, M. Bharath, J. Valder, M. Rijesh (2015) "Post-ECAP Ageing Treatment of Aluminum 6063 Alloy", American Journal of Materials Science Vol.5(3C), pp.74-76.
- Reuben Lasrado, Melroy Furtado, Anil Melwyn Rego, Prinson Veigas (2015), "Automation of Water Management System Using LabVIEW", Journal of Mechanical Engineering and Automation, Vol. 5(3B), pp. 89-93.

- KG Binu, K Yathish, R Mallya, BS Shenoy, DS Rao, R Pai (2015) "Experimental study of hydrodynamic pressure distribution in oil lubricated two-axial groove journal bearing", Materials Today, Vol. 2(4-5), pp.3453-3462.
- Rolvin D'Silva, KG Binu, T Bhat (2015), "Performance and Emission Characteristics of a C.I. Engine Fuelled with Diesel and TiO2 Nanoparticles as Fuel Additive", Materials Today, Vol. 2(4–5), pp.3728–3735.
- Shyam Prasad H, Joseph Gonsalvis, Vijay V. S. (2015) "Effect of Introduction of Water into Combustion Chamber of Diesel Engines", Energy and Power Review, Vol. 5(1A),pp.28-33.
- Chethan Arjun Walikar, Shreedhar Kolekar, Hanumantharaya R., K. Raju (2015), "A Study on Vibration Characteristics of Engine Oil Based Magnetorheological Fluid Sandwich Beam", Journal of Mechanical Engineering and Automation, Vol. 5(3B),pp.84-88.
- Vikram G. Kamble, Shreedhar Kolekar, Chetan Madivalar (2015), "Preparation of Magnetorheological Fluids Using Different Carriers and Detailed Study on Their Properties Nanotechnology", American Journal of Materials Science, Vol. 6 (1), pp.7.15.
- Noel Deepak Shiri, P. Varun Kajava, Ranjan H.
 V., Nikhil Lloyd Pais, Vikhyat M. Naik (2015),
 "Processing of Waste Plastics into Building Materials Using a Plastic Extruder and Compression Testing of Plastic Bricks", Journal of Mechanical Engineering and Automation, Vol. 5(3B), pp. 39-42.
- Ravikantha Prabhu , Abishek K. Amin ,
 Dhyanchandra (2015), "Development and Characterization of Low Cost Polymer Composites from Coconut Coir", American Journal of Materials Science Vol. 5(3C), pp.62-68.
- Deepak Sequeira, Jeevan Mascarenhas, Darren Picardo, Rayen Dias, Orville Sutari (2015), "Mechanical Behavior of Fumed Silica/Glass Reinforced Polyester Nanocomposites", American Journal of Materials Science, Vol. 5(3C), pp. 92-95.
- Orville Sutari(2015), "Process Improvement using Lean Principles on the Manufacturing of Wind Turbine Components", Materials Today, Vol.2, pp. 3429-3437.



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Staff Publications

St Joseph Engineering College

Vamanjoor, Mangaluru

Department of Mechanical Engineering

- SPECIAL POINTS OF INTEREST
- National Conferences
- K. K. Poornesh, Chiranth B. P., Neil Vaz, Anil Melwyn Rego (2015), "Anisotropic Distribution of Elastic Constants in Fuel Cell Gas Diffusion Layers: Theoretical Assessment", Energy and Power, Vol. 5(1A), pp. 34-39.
- Shiri Noel Deepak, Bhat Thirumaleshwara, Bhat Shreeranga, and Kumar Girish (2015), "Effect of Heat Treatment Variables on the Abrasive Wear Behaviour of Al-6061 Alloy and Al 6061-SiCP Composites Using Taguchi Technique", American Journal of Materials Science, Vol. 5 No. 3C, pp. 151-156.
- K. K. Poornesh, Chongdu Cho, Anil Melwyn Rego (2015), "Anisotropic Distribution of Elastic Constants in Fuel Cell Gas Diffusion Layers: Experimental Validation", Energy and Power, Vol. 5(1A), pp. 40-45.

c) National Conferences

- Dr Sudheer M, has presented a paper titled, "Finite Element Investigations of Temperature Distribution in Fins with Circular Perforations" at National Conference in Emerging Trends in Mechanical Engineering (e-TIME-2015), SJEC, Mangaluru, Aug 8, 2015.
- Dr. Sudheer M, has presented a paper titled, "Analytical and Numerical Validation of Epoxy/Glass Structural Composites for Elastic Models" at National Conference in Emerging Trends in Mechanical Engineering (e-TIME-2015), SJEC, Mangaluru, Aug 8, 2015
- Dr James Walder, has presented a paper titled, "Post-ECAP Ageing Treatment of Aluminum 6063 Alloy" atat National Conference in Emerging Trends in Mechanical Engineering (e-TIME-2015), SJEC, Mangaluru, Aug 8, 2015.
- Dr Shreeranga Bhat and Mr Noel Deepak Shiri, have presented a paper titled, "Effect of heat treatment variables on the abrasive wear behaviour of Al-6061 alloy and Al 6061-sicp composites using Taguchi technique" at National Conference in Emerging Trends in Mechanical Engineering (e-TIME-2015), SJEC, Mangaluru, Aug 8, 2015.

- Mr Ravikantha Prabhu, has presented a paper titled "Development and Characterization of Low Cost Polymer Composites from Coconut Coir" at National Conference in Emerging Trends in Mechanical Engineering (e-TIME-2015), SJEC, Mangaluru, Aug 8, 2015.
- Mr Chiranth B P and Mr Anil Melwyn Rego have presented a paper titled "Anisotropic Distribution of Elastic Constants in Fuel Cell Gas Diffusion Layers: Theoretical Assessment" at National Conference in Emerging Trends in Mechanical Engineering (e-TIME-2015), SJEC, Mangaluru, Aug 8, 2015.
- Mr Chiranth B P has presented a paper titled "Equal Channel Angular Pressing of Aluminium 6%wt Titanium Boride Composite" at National Conference in Emerging Trends in Mechanical
- Mr Pavana Kumara B, has presented a paper titled "Performance and emission characteristics of C.I. Engine fuelled with B20 blend of Ricebran methyl ester with DMC as fuel additive" at NCRESE-2014, 7th& 8th November, 2014 at VCET, Puttur.
- Mr Pavana Kumara B, has presented a paper titled "Processing and Characterization of Epoxy Composite with Arecanut and Casuarina Fibers" at National Conference in Emerging Trends in Mechanical Engineering (e-TIME-2015), SJEC, Mangaluru, Aug 8, 2015.
- Mr Orville Sutari, has presented a paper titled "Mechanical Behavior of Fumed Silica/Glass Reinforced Polyester Nanocomposites" at National Conference in Emerging Trends in Mechanical Engineering (e-TIME-2015), SJEC, Mangaluru, Aug 8, 2015.
- Mr Sushanth G, has presented a paper titled "Effect of Compression Ratio on the Performance and Emission characteristics of Blends of Lard Oil Methyl Ester and Diesel on C I Engine"at National Conference in Emerging Trends in Mechanical Engineering (e-TIME-2015), SJEC,
 Dr. Shreerings Blatt and Mr. Apil Melvin Rego
- Dr Shreeranga Bhat and Mr. Anil Melvyn Rego have presented a paper titled "Application of Operations Research Technique to Improve the Performance of the HID of a Hospital", at National Conference in Emerging Trends in Mechanical Engineering (e-TIME-2015), SJEC, Mangaluru, Aug 8, 2015.



- International Conferences
- Training and Workshops

St Joseph Engineering College Vamanjoor, Mangaluru

Department of Mechanical Engineering

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Conferences, Training and Workshops

d) International Conferences

- Mr Binu K.G and Mr Yathish K, have presented a paper titled, "Dynamic Performance Characteristic of Finite Journal Bearings Operating On Tio2 based Nanolubricants" in 2nd InternationalConference on Computational Methods in Engineering and Health Sciences 2015"on 19-20th December 2015 University Putra Malaysia, Malaysia.
- Dr Raju K has presented a paper titled "Effect of tin on the wear properties of spary formed Al-175i alloy" at the International conference on Manufacturing and Materials Engineering (iCMME) held under the banner of Annual International conference on Emerging Research Areas (AICERA 2015) at AmalJyothi Co Of Engineering, Kanjirappaly, Kerala India on 23rd&24th July 2015.
- *Dr Raju K has presented a paper titled "Rheological characterization of magnetorheological fluid using cone and plate type rheometer" at ICAMMP-2015 Karunya University.
- Mr Binu K G and Mr Yathish K. have presented a paper titled "Experimental study of hydrodynamic pressure distribution in oil lubricated two-axial groove journal bearing" at 4th International Conference on Materials Processing and Characterization, 14th-15th March 2015, Hyderabad, India.
- Mr K.G. Binu, Mr Rolvin D'Silva and Mr Neil Vaz have presented a paper titled "Performance and Emission Characteristics of a C.I. Engine Fuelled with Diesel and TiO2 Nanoparticles as Fuel Additive" at 4th International Conference on Materials Processing and Characterization, 14th-15th March 2015, Hyderabad, India.
- Mr Yathish Kumar has presented a paper titled "Hydrodynamic pressure measurement techniques in oil lubricated journal bearings" at 4th International Conference on Materials Processing and Characterization, 14th-15th March 2015, Hyderabad, India.
- Mr Orville Sutari has presented a paper titled "Process Improvement using Lean Principles on the Manufacturing of Wind Turbine Components - a case study" at 4th International Conference on Materials Processing and Characterization, 14th-15th March 2015, Hyderabad, India.

• Dr Shreeranga Bhat E.V. Gijo, and M. G. Rosario have presented a paper titled "Adaptation of Six Sigma concepts in a printing process: A case study in a small scale industry", International Conference on Statistics for TwentyFirst Century – 2015(ICSTC-2015) organized by Department of Statistics, University of Kerala, Trivandrum, India, 17% – 19% December 2015 at Trivandrum.

Training and Workshops

Workshops attended by Staff and Students

- Dr Sudheer M has participated in Two –day Workshop on "Plagiarism" organized by VTU e–Learning Center, Mysuru on 16th&17th October, 2015 at VTU Regional office, Bangaluru.
- Dr Sudheer M has participated in the One day Work shop on "Mission Make in India :synergy with Technical Education System" held at NITK Surathkal on 3rd October 2015.
- Dr Shreeranga Bhat, attended short term training programme on Advances in Quality Management Practices in Industry 10th July to 14th July 2015 in National Institute Of Technology Hamirpur, Himachal Pradesh.
- Dr Shreeranga Bhat has participated two days workshop on "Outcomes-Based Education" conducted jointly by BMS College of Engineering, IUCEE and In Pods on August 2nd and 3rd, 2015.
- Dr Shreeranga Bhat attended, a one-day faculty development programme on 'Emerging Trends in Mechanical Engineering' organized by St Joseph Engineering College, Vamanjoor on 7th August 2015.
- Dr Shreeranga Bhat, attended Six-month workshop in three phases (Face to face session and online) on 'Outcome Based Education' Organized by: Indo-US Collaboration for Engineering Education (IUCEE), USA held from August 2015 – January 2016
- Dr Raju K, has participated in "Research Collaboration meeting with European University Professors" on 27th August, 2015 at Alva's Institute of engineering and Technology, Mijar, Moodbidri.



Vamanjoor, Mangaluru Department of Mechanical Engineering

St Joseph Engineering College

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Training and Workshops

SPECIAL POINTS OF INTEREST

- Training and Workshops
- Student Achievements
- Dr James Valder, has participated in "Research Collaboration meeting with European University Professors" on 28th August, 2015 at Alva's Institute of Engineering and Technology, Mijar, Moodbidri.
- Mr Anil Melwyn Rego has attended 38th series of Seminar and Exhibition of Student Project Programme held at Sahyadri College of Engineering & Management, Mangaluru on 20th and 21st August, 2015.
- Mr Anil Melwyn Rego and Mr Swaraj Dominic Lewis have attend the TEQIP II ISTE short term training programme on "Computer Aided Engineering Analysis", organized by the department of Mechanical Engineering, DBCE in association with department of Mechanical Engineering, SDMCET, Dharwad from 4th to 8th January 2016 at Don Bosco College of Engineering, Fatorda, Goa.
- Mr Rajesha A and Ms Jayashree, Lab instructors, have participated in FIVE day workshop on "CNC Programming and Machining" organized by Department of Mechanical Engieering, SIT Valachil from 7th to 11th December 2015.

- A training in LabVIEW software is arranged in three different modules (Basic, Intermediate and Advanced) for the mechanical engineering students with the support of staffs from Computer Science and Electrical and Electronics engineering department. A total of 21 students from third year are currently undergoing advanced module training and 40 students from second year are undergoing basic module course in LabVIEW as on date.
- A software training program in CATIA was organized in collaboration with MSM Consultancy Services, Bangalore. A total of 42 students from third and fourth year have undergone the training and successfully completed course during November 2015.
- Virtual Lab: A team of faculties and students from the department have undergone one day workshop on "Virtual Labs" at NITK Surathkal on 16th February 2016.





Student Acheivements

Robowars

Mr Shreedhar H Y, Mr Vignesh Kamath, Mr Venkatesh Mayya, Mr Vikas, students of third year B.E., of the Mechanical Engineering department have won the awards in the following robo-war competitions:

- Championship at "DEAD METALS", Techzone 2015, A national level technical symposium held from 24th to26th April at JNNCE Shimoga.
- Championship at National level technical symposium CANTECH 2015 held at CEC Benjanapadavu on 28th and 29th of April 2015.
- First Prize, Robowar 2.O, National Technical Festival Techtatva-2015 held at MIT Manipal 7th-10th October 2015.
- First position, Annual technical symposium, NITK Surathkal held on 11th October 2015.
- Second prize in "Robokombat" event, ENIGMA 2015- State level technical fest, held at MCE Hassan from 16th-19th April 2015.
- · Championship at National Level Robowar Competition, IIT Chennai.





- · Paper Presented
- · Grants
- · Sports

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Student Acheivements

Papers Presented

- Mr Brison Pinto, Mr Winston Pinto won the first Prize for their paper 'Metal Hydride Storage Vessels for Hydrogen' presented in state level inter-collegiate technical fest held at PACE, Mangalore on 17th Oct 2015.
- Mr Ashish Shetty, Mr Haniel Suhith Paul, Mr Anton Joy have won the second prize for thier paper titled "Fuel Cells as Power Source for Unmanned Application" presented in state level inter-collegiate technical fest held at PACE, Mangalore on 17th Oct 2015.
- Mr Harsha C. Alva, Mr Anish N, Mr Ananth Kumar Shetty have participated in the "ENTICE -15" Technovation Award for "Project Expo" at PACE, Mangalore on May 8th and 9th, 2015.

Grants

- Vision Group of Science and Technology (VGST), Government of Karnataka, has sanctioned an amount of Rs 40,000 under Technology Related Innovative Project (TRIP) scheme for a final year BE project (2015-16) proposal on "Gyro-Stabilized Bicycle" submitted under the guidance of respected Principal Dr Joseph Gonsalvis.
- Karnataka State Council for Science and Technology (KSCST) has considered TWO final year BE projects for funding under Students Project Program (SPP) for the year 2015-16.

Sl No	Title of the Project	Guide	Sanctioned Amount
1	Fabrication and Analysis of Finned Cooking Vessel to Improve the Heat Transfer Effectiveness	Mr Vijay V S	Rs 6,000/-
2	Modification on a Given Two Stroke Engine to Achieve Greater performance Characteristics.	Mr Binu K G	Rs 7,000/-

Sports

- Ms Sheetal S. (2nd year) secured the First place in colour BLACK belt KATA for girls 18-21 years category, First place in Black Belt KUMITE women above 18 years in below 40 kg category in JSKA International Open Karate Championship-2015 organized by JSKA, India.
- Mr Reuben Lasrado, Mr Melroy Samson Furtado (8th sem), Mr Rerevan Raj Novais (4th sem) and Mr Abhiram K. (2th sem) played in the SJEC Basket ball team which won "Runners Up" title at the VTU Mangaluru Zone Men's Basketball Tournament 2015, organized by the Department of Physical Education of SJEC on 11th May 2015 in the Basketball Court of the College.
- Ms Sheetal S. Kuchoor (2nd Sem) played in the SJEC Throw ball team which won the VTU Mangaluru zone Women's Throw ball Tournament held on 8th & 9th October 2015 at SCEM, Adyar. The team also won the "Runners Up" title in the Inter zonal Throw ball held at GSSSIETW, Mysore on 13th and 14th October 2015.
- SJEC Men Wrestling team participated in the VTU Single zone Wrestling Championship organized by MVJCE, Bengaluru from 19th to 21st October 2015. For the first time in the history of SJEC the Wrestling team has won the Runners Up Postiton. Few of our department students were also in the team. Mr Shajeer Backer (1st year) secured First Place in the wrestling Championship below 74 kg category, Mr Arjun Kotian (2nd year) secured Third Place in the wrestling Championship below 70 kg category and Mr Anand Krishnan (1st year) secured Third Place in Judo Championship below 60 kg. Category.



- Sports
- Exhibitions and Industrial Visits

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- In the VTU Single Zone 18th Inter-Collegiate Athletic Meet 2016 held from 24th to 27th March 2016 at Sir MVIT, Bengaluru, Mr Karan Miranda (4th year) secured Second Place in Shot Put and Mr George Varghese (3rd year) Third Place in 100 mtrs Run.
- Mr Joshua D' Souza (4th year), Mr George Varghese (3rd year) and Mr Antony Varghese (3rd year) were
 a part of the 4X100 meters Relay, Men's team which won the Third place.



Exhibitions and Industrial Visits

• Mechanical Engineering Department Faculty and students participated in Science Exhibition-2015 organized by Pilikula Vignana Mela on 19th and 20th Sep 2015. Some of the selected student projects of the Department had been kept on exhibition.





Project Exhibition: Final year students project exhibition was held on 21st May 2015 in the college.





 Students from Vth semester Mechanical Engineering visited GWASF (Quality Castings), Mangalore in the month of November 2015.







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Industry Interaction Cell

SPECIAL POINTS OF INTEREST

- Industry Interaction Cell
- Placement Training and Internships

Technical Talk (Video Conference)

 Nano composites And shape Memory Alloys" by Dr T Ram Prabhu, Assistant Director/ Scientist (Materials And Manufacturing process),
 Defence Research & Development Organization (DRDO) was organised on Saturday, 6th February, 2016.





- Automotive Design And Surfacing" By Mr Anush Antony Digital Sculptor
 / Computer Aided Stylist, General Motors Technical Centre Bengaluru-Karnataka was organised on Saturday, 13th February 2016.
- Invited lecture on "Basic awareness on Entrepreneurship" by Mr Canute Sylvester D'Souza, Proprietor-Mangi Cabs, Mangaluru, SJEC Alumnus, Class of 2006, on 23rd February 2016.





- Our proud alumni Mr Akshay Shenoy has delivered a technical talk on "Interactive Mechanical Engineering" for Mechanical Engineering students on 3rd March 2016, 2:30-4:30 pm at Bethania Hall.
- Mr Wolfram Thurm, Product Designer, Bauhaus University in Weimar, Dresden, Germany presented an interactive seminar on topic "Product Design in India" for Mechanical Engineering students on 28th March 2016, 2:15 onwards at Bethania Hall.



Placement Training and Internships

Career guidance and graduate aptitude test 2015-16 was conducted in the department for the final year students by Mr Ganesh Hebbar, Managing Director and Mr Raviraj, Asst. manager from T.I.M.E., Mangaluru.



Aptitude training program for pre-final years was conducted by placement and training department in association with JV Global Bangalore from 27th to 31st January 2016. A total of 65 students from current 3rd year Mechanical Engineering attended the sessions.

One hour aptitude test was conducted by placement and training department in association with JV Global Bangalore for all 3rd year students of Mechanical Engineering on 24th March 2016.

Internships

A total of 72 students have attended internship programmes in various companies during the vacations. The companies are Mandovi Motors Mangalore, Mahendra Rise, Jindal South West, Hindustan Aeronautics Ltd., Karnataka Power Corporation Ltd., New Mangalore Port Trust, Bharath Maruthi, Lamina, BASF, MRPL, HMT, AUDI, EZENITH, DEMPO, TUV India etc.



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Placements

The following Companies have recruited our Mechanical Engineering students in on-campus and off-campus placement drives. A total of 67 students have been placed so far and the number is expected to increase by the end of academic year 2015-16.

Sl No.	Name of the Company	No. of students placed
1	IBM	6
2	POLYCAB WIRES	1
3	SEVENTH SENSE	1
4	TCS	14
5	TECH MAHINDRA	7.
6	THE MANIPAL GROUP	3
7	UST GLOBAL	4
8	MPHASIS	1
9	SAMUNDRA INSTITUTE	6
10	ANGLO EASTERN SHIP MGT	13
11	EDS TECHNOLOGIES	4
12	VDART SOFTWARE SERVICES	7

SPECIAL POINTS OF INTEREST

Placements



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Proud Alumni Message

I must say 4 years at SJEC has been the one of the best periods in my life so far. Apart from excellent academic experience, I was also benefited from the various organisations I was a part of. To sum up SJEC has helped me grow as an individual and given me a good foundation for my career. Working at Bosch Ltd. has been a wonderful experience for me. It has always been my dream job and it gives me great pleasure to share the experiences of working for this esteemed company.

I have had the opportunity to work with the Product Development Team, the Engineering Applications Team and at the Engineering Test Centre. One would also get the chance to work with the Production team, Sales team, Logistics team or Aftermarket team based on their profile. The Graduate Apprenticeship Program at Bosch has helped me apply my practical knowledge and has also helped me enhance my technical knowledge about Vehicles, Engines, Air systems, Emissions, Sensors, Production system at Bosch, etc. It has helped me develop decision making skills and has also given me the opportunity to interact with some of the Experts in the field of Automotive engineering and Mechanical Engineering from India, Germany and other parts of the world. It has truly been an extraordinary learning experience for me.

The learning process never stops. Science and technology are evolving very quickly; it is not only important to keep up with the trends in your own discipline but also adjacent engineering disciplines. Today various engineering disciplines like mechanical and electrical/electronics go hand in hand more than ever before and staying updated about these fields gives you a strong edge in your career growth. As a mechanical engineer it is very important to have basic knowledge of subjects like Thermodynamics, Fluid Mechanics, Metrology, Turbo machines, Theory of machines, Heat transfer etc. Having knowledge of Microsoft office is an absolute necessity. While working in an industry where you get to interact with a lot of people, having good communication skills is very important. Communications helps you grow contacts, which could be very beneficial. Presentation skills are another important factor. Presenting yourself and your work in the right manner is very important. I must say our college is doing a very good job by training students for Individual and Organizational Effectiveness with the I-Point classes. I am extremely happy to know that my college has now started the SAE club. I hope the students make best use of this opportunity to showcase their skill.

My final word of advice to all my dear juniors would be - Compete to win. The world is competitive and not necessarily fair. That is just the way it is. Earning a spot in your dream company may not be very easy. All you need to do is work smarter and find a way to win against all odds. Never compromise your ethics, stay focused. People never fail, they just stop trying. The future is what you make out of it. All the best and I wish you all a bright future.

Ramya B. R., is an SJEC Alumni (Mechanical) from the 2015 batch. She currently works as Graduate Apprentice in Bosch Ltd., Bengaluru. A leading supplier of technology and services in the areas of Mobility Solutions, Industrial Technology, Consumer Goods, and Energy and Building Technology. She can be reached at https://in.linkedin.com/in/ramya-b-r-22268597.



SPECIAL POINTS OF INTEREST

 Proud Alumni Message



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Proud Alumni Message

SPECIAL POINTS OF INTEREST

• Proud Alumni Message What has four years of Engineering given you? Six years ago, around this period, I was at the edge of my final semester. My marks were simply too low for even getting me qualified for any campus interviews. Recession, inflation, oil price, tightening of H1B1 visa, nationalisation in the Middle East, Rupee depreciation, unemployment (after all, too many engineers in the system) were words that frequented the Media those days. Optimistically, yes, I believed there would be a silver lining. Practically though, I couldn't see the end of the dark clouds that loomed over me. My future seemed grim. Quite literally, I was an underdog. That was then. Today, albeit I am not at the pinnacle of my success, I am definitely on the right road! And I have to admit, four years of college life played a pivotal role.

The next few months would be chaotic for the final year students. The majority would run around like headless chicken looking for jobs in top-notch companies and the nerdier minority would pursue their Masters. Regardless of the path, the question remains: what did you gain in these four years that prepares you for the real world?

If you finish your college considering a degree, reminiscences of awesome memories and knowledge in ATD, BTD, CAD, DME, FGH, IJK... to be the core product of your four years, you haven't fully utilised your formative years. College was a powerful character-building place for me and it could be the same for you as well.

Here are some words you should remember: Diligence, Hard work, Responsibility, Integrity, Respect, Smartness, Loyalty, Spontaneity, Planning, Leadership (the list goes on...). Retrospect your past four years and identify value(s) that fit you the best. Look deep through your college days and figure out your core strength(s). What do you like being? Where do you fit best? How best do you contribute to your team? After all, who knows you better than yourself. Identify your keyword!

Not all these words fit everyone perfectly. Consider: Were you the guy who ran non-stop organising College Day? Or maybe you were selflessly coordinating activities for AICUF, NSS and Red Cross. Maybe you are the quiet-type and not bothered with what happens around (today's world definitely needs a lot of you mind-your-own-business guys!) Maybe your core strength could be being witty (I remember interviewing a chap who made the Panel laugh through the entirety of his interview. He got the job!) Maybe it's time management. Maybe it's teamwork. Nurture your strength. Manifest it. Make it the principle of your life. People would one day identify you based on your values. An honest chap. A professional person. A witty colleague. A diligent employee. Don't try out every trick in the bag to impress people with your skills; you are bound to get a few flops and people would mercilessly remember you for your dud moments than for the numerous times you succeeded. Therefore, focus on the core strength(s) you have identified.

Elvis Presley once said, "Values are like fingerprints. Nobody's are the same, but you leave 'em all over everything you do." You are eventually bound to identify your strengths. But in a fast-moving world, remember, it's the early bird that catches the worm. The sooner you know your strengths, the quicker you achieve your goals and leave your mark.

- Jeswin George John

Jeswin George John is an SJEC Alumni (Mechanical) from the 2010 batch. He currently works for Projects and Business Development for one of Middle East's largest conglomerate – Al-Futtaim Group. He can be reached at http://bit.do/jeswin





St Joseph Engineering College Vamanjoor, Mangaluru

Department of Mechanical Engineering

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Outgoing Students: Class of 2016

SPECIAL POINTS OF INTEREST

- · Outgoing Students: Class of 2016
 - · Section M1
 - · Section M2
 - Section M3







Section M2





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Outgoing Students: Class of 2016

M.Tech - CAMS

SPECIAL POINTS OF INTEREST

- Outgoing Students: Class of 2016 M.Tech - CAMS
- · Faculty



Faculty - Mechanical Engineering





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facilitate state-of-the-art research by the faculty and students.

Research Facilities

SPECIAL POINTS OF INTEREST

· Research Facilities

The following research facilities are installed to promote innovative academic project works and

· Pin-on-Disk Wear Tester



Smokemeter



Leica Optical Microscope



 Computerised Variable Compression Ratio Diesel Engine Test Rig



 Spray forming laboratory set up under VGST research grant by Dr Raju K, Professor & Research Head (VGST/K-FIST-LEVEL I/GRD-351/2014-25)



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