



St. Joseph Engineering College

Mechanical Engineering Department

E - Newsletter , Volume 1 , Issue 1

2015

Special points of interest:

- Message from the Director
- Message from the In-charge Director
- Message from the Asst. Director

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Editorial Team:

- Mr. Shreeranga Bhat
- Mr. Anil Melwyn Rego
- Ms. Ramya M.
- Mr. Pavana Kumara B.

Messages

Message from the Director

"I am pleased to share with you the first E newsletter from Mechanical Department, SJEC. You will be delighted to go through this first volume that will connect you to the many activities of this dynamic department."



I thank the HOD, the Faculty, Staff and all Mechanical Students for their tremendous enthusiasm, amazing involvement of academic interest that is shared in this issue of newsletter. My profound thanks to the editor and team of this newsletter for their initiative and interest in publishing it.

I wish may the future issues grow with greater ideas through your appreciation and feedback."

Rev. Fr. Joseph J. Lobo

Message from the In-charge Director

"Educational institutions contribute to the human progress through useful knowledge. Engineering colleges are to be even more effective instruments of technical progress. They also contribute to transformation of Society. Engineering education at St Joseph tries to fulfil the above requirements by creating learning and applying climate through its motto 'Service & Excellence'. Department of Mechanical Engineering is a fore runner in this aspect. Students and faculty of Mechanical Engineering are challenged to go beyond portals of classroom, by involving themselves in project work, professional conversation and by participating in different technical as well as co-curricular events."



This newsletter records all the activities of department of Mechanical Engineering. I hope and pray that the learn and apply climate will transform everyone to move forward and face the future with confidence."

Rev. Fr Ajith Menezes

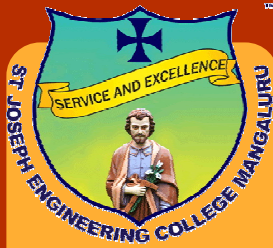
Message from the Asst. Director

"It's a proud moment for me to congratulate the Mechanical Department for its great initiative in bringing out its first e-Newsletter. This new endeavor may encourage all, to work with new spirit and passion. Vince Lombardi says "The quality of a person's life is in direct proportion to their commitment to excellence, regardless of their chosen field of endeavor."



So let us strive to achieve excellence in whatever we undertake as professionals. The Department may excel with its exuberant achievements and research activities in the coming days. May God bless us all."

Rev. Fr Rohith D'costa



Special points
of interest:

- Message from the Principal
- Message from the Vice Principal
- Message from the HOD

Messages

Message from the Principal

"I am immensely pleased to provide my message to the Departmental news letter that the department is bringing out. This department is enjoying the highest intake of 180 pick of the bunch of students each year and across 4 years of their engineering program they make a mammoth strength in excess of 800 students constituting nearly 30% of the entire student strength of the college. The presence of these students is found in every activity or events, be it academic or extracurricular or cultural or sports that take place in the college or in the VTU. Their strength in every sphere is molded by a strong team of highly qualified faculty and a department that has all the facilities for the all-round development of the students that renders them to accept responsibilities and carryout them successfully. Having such wonderful students is a pride to the college and when they do so many good things we need to have a forerunner to tell about their achievements to the world. In view of this it is essential to bring out a newsletter and I am happy that it is happening, we all welcome whole heartedly the effort towards this. Let this news letter and series of such letters shall keep us all continuously informed about all the developments of the department in the years to come.

I wish the Head of the Department, all the staff and students of the department for having taken the best initiatives in bringing out this Newsletter. I wish the staff and students of the department the best."

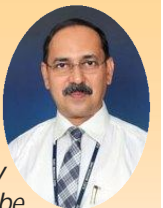


Dr Joseph Gonsalvis

Message from the Vice Principal

"As machines get to be more and more like men, men will come to be more like machines" said Joseph Wood Krutch. A fearful prospect, no doubt. It is for this reason that engineers need to indulge in ventures such as design of newsletters and magazines. They bring us closer to humanity and exercise those quintessential aspects of our nature that cannot be delegated to machines. They are proof that we are still human enough to care.

I hope this e-newsletter brings out these qualities in all those who are involved. I am sure the e-newsletter will speak of the numerous achievements of the Dept of Mechanical Engineering, for your department has much to show-case. But, your true triumph, I feel, is not in understanding the complexities of machines, but in understanding the needs of humans whom these machines serve. We have a long way to go before engineers design machines which can do that!"



With best wishes to the E-newsletter Team...

Dr Rio D'Souza

Message from the Mechanical HOD

"As the saying goes by "Coming together is a beginning, keeping together is progress and working together is success", I congratulate the entire editorial team for their solidarity in bringing out successfully the first edition of e-NEWS, a Department news letter for the academic year 2014-15. May God bless you."



Dr Raju K.



Special points of interest:

- Inauguration of the Students' Association "TORQUE"
- Teachers' day celebration



Departmental activities

INAUGURATION OF THE STUDENTS' ASSOCIATION "TORQUE" :

On 28th August 2014, the students' association "Torque" was inaugurated by Dr. Vijay H. Desai, Professor, Department of Mechanical Engineering, NITK, Surathkal. In his speech, he motivated the students to approach engineering with a different perspective and shift from teaching centric to learning centric education



The felicitation was followed by various activities for the teaching and non-teaching staff by the "Torque" members.



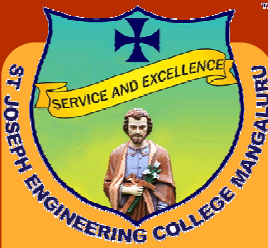
ENGINEERS' DAY CELEBRATION:

On 18th September 2014, the students' chapter "Torque" celebrated Engineers' day. The guest of honour was Dr. Raju K., HOD of the Mechanical Engineering department. Activities called 'Misfits' and 'Crazy toolbox' was arranged for the students.

TEACHERS' DAY CELEBRATION :

On 5th September 2014, the student chapter "Torque" along with the ISTE students' chapter celebrated Teachers' Day by felicitating Prof. Ganapathi Bhat, senior faculty member of the Mechanical Engineering Department, who retired in June 2014 after serving 7 years in our college.





Special points
of interest:

- Extra-curricular activities

Department activities



'Misfits' was an group event, where the students were made to dismantle a machine part and fix the same.



Another activity called 'Crazy toolbox' was conducted for the students' wherein they were given time to memorize the positions of the tools and later re-arrange the disorganized tools.

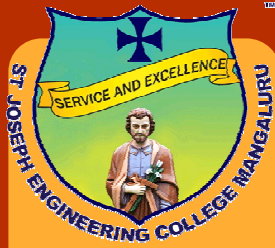
EXTRA-CURRICULAR ACTIVITIES :-

Technical quiz - This event was conducted on 25th September 2014 for the mechanical engineering students. The competition was comprised of different rounds like spot question, time-based questions and rapid questions.



Technical drawing competition - This competition was held on 25th September 2014, where the participants were asked to sketch an isometric view of the machine tools.





Special points
of interest:

- Funded project
- PhD/MSc degrees

Staff Achievements

RESEARCH CENTRE ACHIEVEMENTS:-

Funded project:-

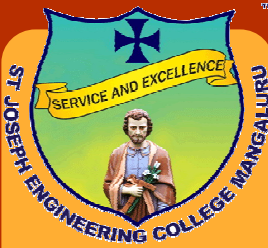
- Dr. Raju K., Professor and HOD of the department has been selected for the grant of Rs. 20 lakhs from the Government of Karnataka, Vision Group on Science and Technology, Department of Information Technology, Biotechnology and Science & Technology for the project titled, "Effect of alloying elements and process Variables on the properties of Al-Si alloys produced by Spray forming" for the academic years 2014-2016.

PhD/MSc degrees awarded:-

- Mr. Sudheer M. has been conferred with the Ph.D. degree from VTU Belagavi for the thesis titled, "Wear Performance Study of Polymer Matrix Composites" under the supervision of Dr. Thirumaleshwar Bhat, Dean QA, SJEC, Vamanjoor.

- Mr. K. P. Udayashankara B. has been conferred with the M. Sc. (Engg.) by research from VTU Belagavi for the thesis titled, "Optimization of Processing Routes and Characteristic Study of Aluminium – Natural Quartz Metal Matrix Composites" under the supervision of Dr. Thirumaleshwar Bhat, Dean QA, SJEC, Vamanjoor.
- Mr. Vijay V. S. has been conferred with the M. Sc. (Engg.) by research from VTU Belagavi for the thesis titled, "A modified Approach to the Design of the Two Stroke SI Engine" under the supervision of Dr. Joseph Gonsalvis, Principal, SJEC, Vamanjoor.





Special points of interest:

- Funded projects
- Placements
- Sports

Students' achievements

FUNDED PROJECTS:-

The following students' project has been funded by the Karnataka State Council for Science and Technology (KSCST) for the academic year 2013-2014.

Sl. No.	TITLE OF THE PROJECT	GROUP MEMBERS	NAME OF THE GUIDE	SANCTIONED AMOUNT
1	Design of energy efficient air cooler	Mr. Manoj Nayak Mr. Preetham Y. J. Mr. Nikhil P. S. Mr. Micah Peter D'Souza	Dr. Joseph Gonsalvis	Rs. 5,500
2	Design and fabrication of wheel chair convertible to bed	Mr. Vernon Clive Quadros Mr. Sumanth A. Baitholkar Mr. Olen Snadden D'Silva Mr. Robin Monteiro	Mr. Ravichandran	Rs.7,500
3	Design and fabrication of solar thermal pump	Mr. Subraya Krishna Bhat Mr. Rithesh H. S Mr. Srinidhi S. Mr. Raghuvveer Rao	Dr. Raju K.	Rs.7,500

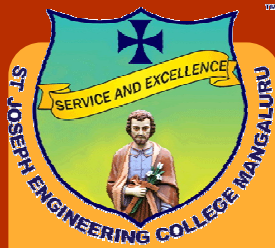
PLACEMENTS:-

- From 12th-14th of August 2014, ITC Infotech conducted campus recruitment for VII semester students and 4 students got selected.
- On 9th & 10th of October 2014, Tech Mahindra conducted campus recruitment for VII semester students and 7 students got selected.

SPORTS :-

- Men's basketball, which included Mr. Reuben Lasrado, Mr. Swaraj P. Sebastian and Mr. Varun S. with other team members were awarded the runner-up title in the VTU Mangalore Zone basketball tournament conducted by NMAMIT, Nitte on 21st April 2014, and were qualified to represent at the inter-zonal tournament at SIT, Tumkur.
- The Men and Women's chess team participated in the VTU Rest of Bangalore Zone Chess Championship conducted by VTU Regional Office, Mysore from 21st to 23rd August 2014 and Ms. Chrisel Ann Pais of first year Mechanical Engineering won the 'Third prize' in the Rest of Bangalore Zone as well as 'Third prize' in the inter-zone Chess Championship.





Special points
of interest:

- Journal
Publications

Staff Publications

JOURNAL PUBLICATIONS:-

- Raju K. and Ojha, S.N. (2014), "Effect of spray forming on the microstructure and wear properties of Al-Si alloys", *Procedia Materials Science*, Vol.No. 5, pp. 345-354.
- Valder James, Rijesh M., and Surendranathan, A.O. (2014), "Failure Analysis of Cast Tubular Specimens of Al-5Zn-1Mg While Processing at Room Temperature by Equal Channel Angular Pressing (ECAP)", *Journal of Failure Analysis and Prevention*, Vol.No. 14, pp. 690-695.
- Poornesh K.K., Wendling L., Yang Xiao and Cho C. (2014), "Effect of hygrothermal ageing on the tensile and fracture response of a fuel cell membrane", *Smart Materials and Structures*, Vol. No. 23, Issue No. 7, pp. 075017.
- Sudheer M., Prabhu Ravikantha, Raju K., and Bhat Thirumaleshwara (2014), "Effect of filler content on the performance of Epoxy/PTW composites", *Advances in Materials Science and Engineering*, Vol. 2014, pp. 1-11.
- Sudheer M., Hemanth K., Raju K., and Bhat, Thirumaleshwara (2014), "Enhanced mechanical and wear performance of epoxy/glass composites with PTW/Graphite hybrid fillers", *Procedia Materials Science*, Volume 6, pp. 975-987.
- Sudheer M. (2014), "Implementation of Taguchi Design for dry friction coefficient of epoxy composites", *NMAMIT Annual Research Journal*, Vol. 4, pp. 24-29.
- Binu K.G. , Shenoy B.S. , Rao D.S., and Pai R. (2014), "Static characteristics of a fluid film bearing with TiO₂ based nanolubricant using the modified Krieger-Dougherty viscosity model and couple stress model", *Tribology International*, Vol. 75, pp. 69-79 .
- Binu K.G., Shenoy B.S., Rao D.S., and Pai R. (2014), "A variable viscosity approach for the evaluation of load carrying capacity of oil lubricated journal bearing with TiO₂ nanoparticles as lubricant additives", *Procedia Materials Science*, Vol. 6, pp. 1051-1067.
- Bhat Shreeranga and Jnanesh N.A. (2014), "Application of lean Six Sigma methodology to reduce the cycle time of out-patient department service in a rural hospital", *International Journal of Healthcare Technology and Management*, Vol.14, No.3, pp. 222-237.
- Bhat Shreeranga, Gijo E.V., and Jnanesh N.A. (2014), "Application of Lean Six Sigma methodology in the registration process of a Hospital", *International Journal of Productivity and Performance Management*, Vol. 63, No. 5, pp. 613-643.
- Bhat Shreeranga, Gijo E.V., and Jnanesh N.A. (2014), "Application of Six Sigma methodologies in a small scale foundry industry", *International Journal of Lean Six Sigma*, Vol. 5, No. 2, pp. 193-211.



Special points
of interest:

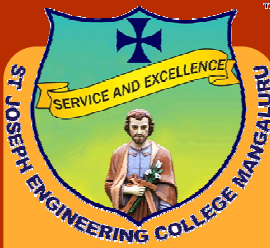
- Conference Publications

Staff Publications

- Yathish K., Binu K.G., Shenoy B., Rao D. S., and Pai R. (2014), "Study of TiO₂ Nanoparticles as Lubricant Additive in Two-Axial Groove Journal Bearing". World Academy of Science, Engineering and Technology, International Science Index 95, International Journal of Mechanical, Aerospace, Industrial and Mechatronics Engineering, Vol. 8, No. 11, pp. 1692 - 1698.
- Prashanth Kumar and Shreeranga Bhat have presented a paper titled, "Performance and emission characteristics of Cotton Seed Oil Methyl Ester and Diesel Blends on CI Engine at Elevated Inlet Air Temperature" at the National Conference on Renewable Energy Systems and Engineering (NCRESE-2014) held on 7th & 8th November, 2014 at VCET, Puttur, Karnataka.

CONFERENCE PUBLICATIONS:-

- Raju K. has presented a paper titled, "Effect of Spray forming on the microstructure and wear properties of Al-Si alloys" and chaired a session at the International Conference on Advances in Manufacturing and Materials Engineering held at NITK, Surathkal from 27th to 29th March, 2014.
- Shreedhar K.R. has presented a paper titled, "Vibration Analysis of Simply Supported Magneto Rheological Fluid Sandwich Beam" at the International Conference on Design, Manufacturing and Mechatronics (ICDMM 2014) held at KJEI's Trinity College of Engg. & Research, Pune, on 09th and 10th January, 2014.
- Sudheer M. has presented a paper titled, "Enhanced mechanical and wear performance of epoxy/glass composites with PTW/graphite hybrid fillers" at the 3rd International Conference on Materials Processing and Characterization held on 8th and 9th March, 2014 at GRIET, Hyderabad.
- Mr. Shreedhar K. R. has attended and presented a paper titled, "Modeling & Analysis of Slip Flow Microfluidic Application by Using Comsol Multiphysics" at the National Conference on Emerging Trends in Mechanical & Materials Engg. held on 30th and 31st October, 2014 at Basavakalyan Engg. College, Bidar.
- Mr. Binu K.G. presented a paper titled, "A Variable Viscosity Approach for the Evaluation of Load Carrying Capacity of Oil Lubricated Journal Bearing with TiO₂ Nanoparticles as Lubricant Additives" at the 3rd International Conference on Materials Processing and Characterization held on 08th and 09th March 2014 at GRIET, Hyderabad.
- Sushanth H. G. has presented a paper titled, "Investigation on Humidification and Dehumidification in a Silica Gel Packed Bed by SSR Model" at the National Conference on Trends in Mechanical Engineering (TIME-2014) held on 16th & 17th January, 2014 at Nitte Meenakshi Institute of Technology, Bangalore.



Special points
of interest:

- Conference Publications
- Technical talk
- Industry interaction cell activities

Staff Publications

- Pavana Kumara B. and Rolvin D'Silva have 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 the National Conference on Renewable Energy Systems and Engineering (NCRESE-2014) held on 7th & 8th November, 2014 at VCET, Puttur, Karnataka.
- Ramya M., has presented a paper titled, "Performance Evaluation and Optimization of ZGM123N Coal Mill at Thermal Power Plant" at Vision-14, National Level P.G. Conference, K.V.G.C.E. Sullia on 28th April 2014.
- Ramya M. has presented a paper titled "Performance Evaluation and Optimization of ZGM123N Coal Mill at Thermal Power Plant" at the Proceedings of the 2nd International Conference on Current Trends in Engineering and Management ICCTEM-2014 held from 17th to 19th, July 2014, VVCE Mysore.
- Ramya M., Dr. Ramakrishna N. Hegde and Gangadhar Sheri have presented a paper titled, "Study on Setting the Performance Parameters of Coal Mill for Optimum Results" at the Proceedings of International Conference on Emerging Trends in Engineering, ICETE-2014 Nitte, NMAMIT Mangalore, Karnataka, India, held from 15th-17th, May 2014.

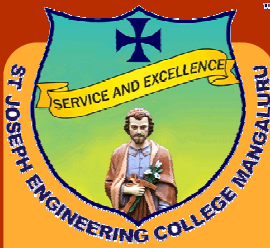
TECHNICAL TALK

I.S.T.E. SJEC Students Chapter had organized a technical talk on "Recent Developments in Hydrogen Energy Technology" by Dr. Poornesh Kumar, Associate Professor, Mechanical Engineering Department on 7th November 2014.

INDUSTRY INTERACTION CELL ACTIVITIES:

- A webinar was conducted on the topic, "Product Development Process in Auto Industry" by Mr. Tapan Kasargod (Engineer Ford Motor Company, Dearborn, Michigan, USA) on 3rd November 2014.
- A technical talk was delivered on the topic, "Hydraulics in Agriculture" by Mr. Sharath D'Souza (Manager-Component Development and Materials Management, Mahindra & Mahindra, Mumbai) on 6th September 2014.





Special points
of interest:

- Staff
- Students

Workshops and Internships

STAFF:-

Workshops:-

- Mr. Sudheer M. has attended a workshop on “Conduction of PG Mechanical Engineering Labs” organized by VTU at Bangalore on 10th October 2014.
- Mr. Swaraj D. Lewis has attended a workshop on “Solid Works” organized by VTU at Bangalore on 20th November 2014.
- Dr. Thirumaleshwara Bhat attended an outcome-based workshop at NMAMIT, Nitte from 14th to 16th June 2014.

STUDENTS:-

Internships:-

Following are the list of companies and the number of students who attended internship in the year 2014.

Sl. No.	Name of the company	No. of students attended	Sl. No.	Name of the company	No. of students attended
1	BASF India Ltd.	3	9	Mandovi Motors Pvt. Ltd.	26
2	Bharath Earth Movers Ltd.	6	10	MRPL	16
3	Bosch India Ltd.	24	11	NMPT	1
4	Campco Chocolate Factory	1	12	Srinivas Induction Hardening, Belgaum	3
5	HAL	25	13	Vega Auto Accessories Pvt. Ltd., Belgaum	3
6	JSW Steel Ltd.	4	14	Volvo	7
7	Karnataka Agencies	19	15	KIOCL	3
8	Kerala State Road Transport Corporation	6			



Special points
of interest:

- Message from alumni

Proud alumni message



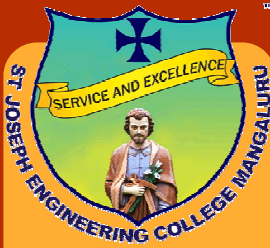
Sathyajith Ullal

I am Sathyajith Ullal. I graduated from St. Joseph Engineering College, Mangalore, in Mechanical Engineering, in the year 2009. The journey that began 10 years ago from the gates of my Alma Mater has led me on the right path, not only professionally, but also personally, morally and culturally, while setting a strong foundation for a successful career in the field of Aerospace Engineering at QuEST Global and Tech Mahindra. The supportive staff, the obliging management and the Red Cross activities have all helped me to build a personality that I am proud of today. Right from the support of my lecturers over my choice to pursue my Masters when the industry wasn't offering jobs due to recession, to the committed attempt at reuniting the Alumni, my Alma Mater has been there for me throughout, even after 6 years. The genuine warmth of the greetings when I visit the campus reaffirms this relationship, which keeps calling me back to the place that shaped our hearts and minds. I am forever deeply indebted to all that my College has offered.

Sharath Domnic D'souza

Hi! I am Sharath Domnic D'Souza, currently working at Mahindra & Mahindra, Mumbai. I am a first batch student of St. Joseph Engineering College, Mangalore and graduated in 2006, with glorious 4 years and many memorable moments, which transformed me into a professional. "The first step is, you have to say that you can.". This is what I had thought when I was chosen to lead the first mechanical association of SJEC. It was a start in which we, as mechanical engineering students, had invited industrial experts and academicians to give us insight on the latest trends in the industry. SJEC has come a long way since 2002. I wish the college and its faculty the very best.





**Special points
of interest:**

- Department Vision
- Department Mission

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

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