



# NIRZER

NEWSLETTER OF MECHANICAL ENGINEERING DEPARTMENT



## Events & Activities

Date	Event
26 <sup>th</sup> June to 15 <sup>th</sup> July 2017	Student Internship Period
25 <sup>th</sup> July 2017	B.E.Mechanical Project Exhibition
2 <sup>nd</sup> to 9 <sup>th</sup> August 2017	IIIE Graduateship Examination
10 <sup>th</sup> August 2017	Robotics workshop for school children
17 <sup>th</sup> August 2017	MESA Council Installation
18 <sup>th</sup> August 2017	ISHRAE Goa Chapter Inauguration
19 <sup>th</sup> August 2017	One Day Workshop on AutoCAD
12 <sup>th</sup> & 13 <sup>th</sup> October 2017	MESSERGI activity: “Diwali Exhibition”
16 <sup>th</sup> October 2017	LaTeX workshop for B.E. Mechanical Students
26 <sup>th</sup> October 2017	Seminar on Ergonomics at Workplace
31 <sup>st</sup> October 2017	Ethics and Motivation Workshop

## Department News

- Prof. Rajesh Prabhu Gaonkar is Member of Programme committee of Indian Institution of Industrial Engineering (National Organization) for the year 2017-18.
- Prof Rajesh Prabhu Gaonkar and Dr. Shridhar Mhalsekar attended the Land Handing Over ceremony of NIT, Goa on 15<sup>th</sup> July 2017.
- Shri Shrikrishna V. Phadte, Mechanic Grade II is transferred from Government Polytechnic, Panaji to Mechanical Engineering Department, GEC from July 2017.
- Prof. Akshay Nigalye, Prof. Gajesh Usgaonkar, Prof Mahesh Caisucar and Prof. Harichandra Chandekar visit Ichalkaranji for Material Testing Laboratory Equipment on 30<sup>th</sup> July 2017.
- Dr. Raghavendra Datta Naik was invited as an expert to conduct the viva-voce examination of research scholar at Mahendra College of Engineering, Salem, Tamil Nadu on 10<sup>th</sup> August 2017.
- Prof. Rajesh Prabhu Gaonkar attended 3<sup>rd</sup> Convocation Ceremony of NIT Goa held on 3<sup>rd</sup> September 2017 at Rajiv Gandhi Kala Mandir, Ponda.



- Prof. Rajesh Prabhu Gaonkar was appointed Technical Committee Member of the 59<sup>th</sup> National Convention of Indian Institution of Industrial Engineering and International Conference on “Manufacturing & Industrial Engineering (ICMIE - 2017)” organized by Indian Institution of Industrial Engineering (IIIE), Aurangabad chapter and MGM’S Jawaharlal Nehru Engineering college, held at Aurangabad (14-16 September 2017).
- Prof. Rajesh Prabhu Gaonkar, Prof Akshay Nigalye and Prof. Milind Sakhardande were involved in GEC golden jubilee celebrations and members of core committee. The closing ceremony was held on 23<sup>rd</sup> September 2017.
- IIT Bombay faculty, Prof. Krishna Jonnalagadda, Prof Amitava De, Prof Brijesh Eshpuniyani and Prof. Rodney Fernandes visit Fluid Mechanics, Material Testing Lab and Workshop on 26<sup>th</sup> September 2017.
- Shri Harichandra Chandekar given additional responsibilities as Faculty In-charge of Vacation/Detention Program of GEC teaching staff w.e.f. 9<sup>th</sup> October 2017.
- Prof. Rajesh Prabhu Gaonkar, Shri Milind Sakhardande and Dr. Shridhar Mhalsekar visit Coimbatore for Gas Dynamics and Turbomachinery (GDT) Lab equipments from 20<sup>th</sup> to 23<sup>rd</sup> November 2017.
- Prof. Rajesh Prabhu Gaonkar was appointed as Advisory Committee Member and Technical Committee member of 4<sup>th</sup> International Conference (ICIE - 2017) on “Industrial Engineering” organized by S. V. National Institute of Technology, Surat (21– 23 December 2017).
- Prof. Rajesh Prabhu Gaonkar visited Department of Industrial Engineering & Management, BMS College of Engineering, Bengaluru visit on 29<sup>th</sup> December 2017.
- Dr. Shridhar Mhalsekar is the coordinator for conducting experiments for Institute of Engineers, AMIE Section B (Mechanical Engg.)
- Dr. Raghvendra Naik was appointed as the ‘Senior Supervisor’ for Goa University Bachelor of Engineering, Nov/Dec 2017 end semester Examination.
- Prof. Vinay Shirodkar and Dr. Raghvendra Naik were the co-ordinators for the conduct of Internal Test Examination.
- Saurabh Raikar, Sarath K, Sanket Shet and Annapurna Hosalli were teaching faculty (contract) in the department during July to December 2017.
- Dr. Shridhar Mhalsekar appointed as member of Research Cell Committee at GEC, Farmagudi

## Goa University Mechanical Engineering Branch Topper

Having excelled in academics since his first year in Goa College of Engineering, Keshav alias Deepesh Ramesh Shetkar has achieved his target of becoming the Goa University topper for the 2013-2017 batch of Mechanical Engineering students.

A resident of Marcel, Keshav started his schooling in Sharada English High School, Marcel. He definitely wasn't an early bloomer as was apparent from his laid-back attitude in high school. He started to pick up his pace in what is regarded as the most important year in a student's life, the 10<sup>th</sup> Std. He joined Mustifund Higher Secondary, Panaji for his higher secondary education and continued to show the same level of dedication in the following years, scoring 85% in his 12<sup>th</sup> standard examination. Throughout his life, he had developed a love for machines and mechanism, breaking open and disassembling things and finding out how they work, although not everything he opened kept working. He also had a keen interest in the workings of automobiles and scooters, gaining experience by maintaining his family cars and bikes.



Keshav scored a high rank in the Goa Common Entrance Test and was able to get an admission in the field he desired with ease. After joining the Mechanical Branch in Goa College of Engineering he carried on with his target of achieving the maximum he could with the time that was given. He became the class topper for the first time in his 4<sup>th</sup> semester and scored a distinction in each of the 8 semesters of engineering. A final aggregate of 86.19% is no mean feat. Meanwhile his love for understanding machines and automobiles continued to grow. He joined Team Engico Racing in 2014 and played an integral part in the designing, building and testing of TER's 2<sup>nd</sup> go kart which was among the top 10 in India for GKDC 2015. In his final year of engineering, he did not give up his love for hands-on technical things to focus entirely on academics. In fact, he took up one of the most difficult final year projects amongst his batch. The conversion of a manual transmission motorcycle into an automatic. He was seen in the workshop judiciously working on their project while managing to study for his final exams at the same time. With a final percentage of 90.7% in the 8<sup>th</sup> semester he managed to become the Goa University Topper for 2017.

## Student Council 2017

Shubham Chowgule, T.E.Mechanical student elected as General Secretary of Student Council for the academic year 2017-18.



## **Dr. Jagannath Hirkude joins Mechancial Engineering Department**

Dr. Jagannath Hirkude completed his graduation in Mechanical Engineering in 1995 under Shivaji University Kolhapur, M.Tech in Energy Systems Engineering from IIT Bombay and PhD in Mechanical Engineering from University of Pune. He is also certified Energy Auditor by Bureau of Energy Efficiency, Ministry of Power Government of India. His PhD research topic was “Investigations on Energy Conversion from Kitchen waste”. He is having 19.5 years of teaching experience with PCCE Verna and 2 years of Industrial Experience with Suzlon Energy and Western Biosystems Limited, Pune. He was working as Head Mechanical Engineering Department at Padre Conceicao College of Engineering, Goa. Dr. Hirkude joined as Associate Professor in Mechanical Engineering Department of Goa College of Engineering with effect from 21<sup>st</sup> December 2017. He has published more than 30 papers in different International conferences and International Journals. His published work is published in reputed referred Elsevier Journals like Applied Energy, Fuel, Fuel Processing Technology, Energy, Energy Procedia etc. He is also in Editorial member and reviewer of different International Journals. He was Member of Goa State Expert Appraisal (SEAC) Committee appointed by MOE&F India to issue environmental Clearances to category B projects from December 2013 to November 2016. His areas of Interests are Engineering Thermodynamics, Internal Combustion Engines, Energy Systems Engineering, Refrigeration and Air-conditioning, Power Plant Engineering, Alternate fuels and Energy Management.



## **GEC Women Cell Member**

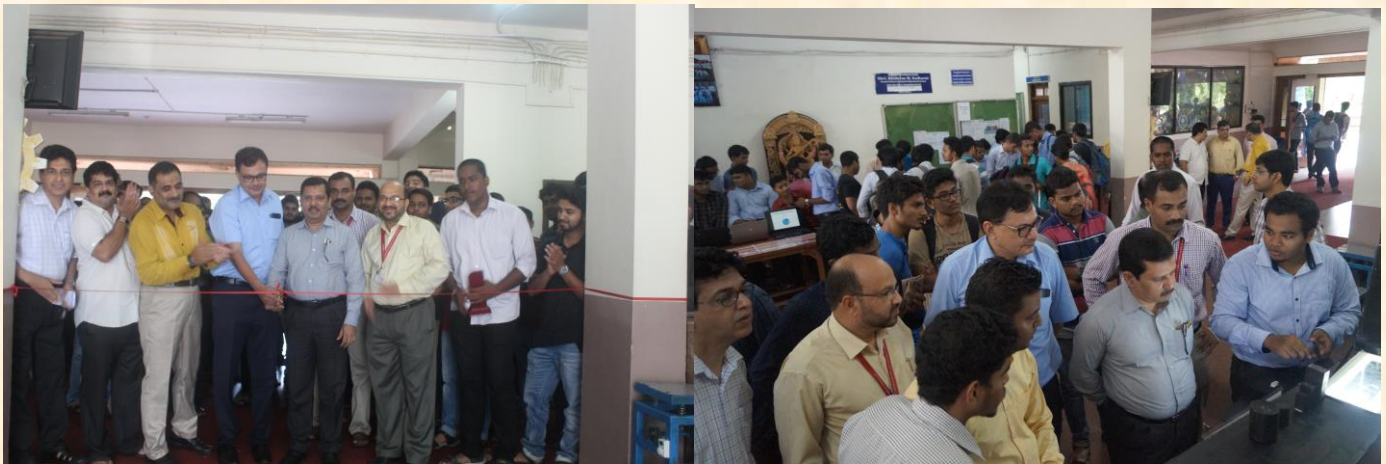
Ms. Rani Albuquerque, Laboratory Assistant in Mechanical Engineering Department is appointed as member of Women Cell of GEC with effect from 23<sup>rd</sup> November 2017. The Women Cell will look into the various needs and requirement of working women's within the institute and also extend the facility and benefit of technological awareness to the local community with sole motto of capacity building and improve their working skills.





## B.E. Project Exhibition 2017

Students of final year mechanical engineering exhibited their projects during the Annual Project Exhibition held on 25<sup>th</sup> July 2017 under the banner of Mechanical Engineering Students Association (MESA). The exhibition was inaugurated by Shri Deepak Pai, Head of Engineering and Procurement, Fomento Resources and Shri Vivek Kamat, Director of Technical Education in the presence of Dr. R. B. Lohani, Principal and Dr. Rajesh Prabhu Gaonkar, Head of Mechanical Engineering Department. A total of 15 projects including 8 in-house projects and 7 industrial projects were on display. Some of the in-house projects showcased are Automatic Manual Transmission for a Two Wheeler, Design and Fabrication of Multitasking Flexible Vegetable Chopper, Multi Degree Suspension Drive System, Design and Development of Paper Recycling Machine, Design and Fabrication of Footstep Energy Generation Model, Design and Fabrication of Hydraulic Coconut Dehusker. Some of the industrial projects demonstrated during the exhibition were Total Productive Maintenance in Pharmaceutical Company, Dynamic Vehicle Routing in Beverage industry, Six Sigma in locks manufacturing plant, Lean Manufacturing process on Horizontal and Turn milling machines, Energy optimisation through rationalization of compressed air network. The exhibition received appreciation from guests, faculties and fellow students.



## Indian Institution of Industrial Engineering (IIIE) Graduateship Exam

Report by Shri Gajesh Usgaonkar

IIIE Graduate Ship Examination was conducted by IIIE, Goa Chapter at GEC from 02<sup>nd</sup> August to 09<sup>th</sup> August 2017. In total 08 candidates answered Preliminary, 09 answered Section- A and 14 answered Section-B of the exam. All the candidates who answered the exam were from the Industry. The Exam was conducted for 35 subjects, spread over eight sessions, each session being of three hours duration. The timing for the sessions was in the evening from 6 to 9 pm on working days and on Sunday it was in the morning from 10 am to 1 pm.



Prof. Gajesh G. S. Usgaonkar, Associate Professor of Mechanical Engineering Department was the Chief Exam Superintendent for this exam, assisted by Prof. Saurabh Raikar, also Assistant Professor (contract) of Mechanical Engineering Department. The examination was conducted smoothly under the guidance of Prof. Milind J. Sakhardande, Associate Professor of Mechanical Engineering Department, Dr. Suraj Rane, Professor of Mechanical Engineering Department and Chairman IIIE, Goa Chapter and Dr. Rajesh Prabhu Gaonkar, Head of Mechanical Engineering Department. Many IIIE members from the Institute and Industry took active participation in the smooth conduct of the exam and were also involved in the invigilation duties. The candidates answering the exam expressed their gratitude towards the authorities of IIIE, Goa Chapter, GEC and the Principal, GEC for having the centre in the college, which is the closest centre and avoid travel to distant centres like Pune or Bangalore for answering the exam while availing leave for over a week.

## Training Programme at ISBT, Bogda

Dr. Mahesh Dhawaliker was resource person for conducting a training programme on "Network Techniques and Project Management" at Institute of Shipbuilding Technology, Bogda, Vasco on 21<sup>st</sup> October 2017.





## Robotics Workshop at Sarvodaya High School, Usgao

Goa College of Engineering (GEC) faculty and students of GEC-NSS Unit successfully organized motivating talk sessions and hands-on workshop for students of Sarvodaya High School-Usgaon on 10<sup>th</sup> August 2017. The Goa Engineering team led by Prof. Gajesh Usgaonkar and Prof. Kavita Asnani received a warm welcome from the management, faculty and students of Sarvodaya High School. Addressing the gathering Prof. Kavita Asnani inspired the students and highlighted the objectives of the workshop encouraging the students to equip themselves for the world of work. Next a workshop on 'Getting started with Robotics' was conducted by Mechanical Engineering students Shubham Samant, Shubham Gaonkar and Prajakt Naik. The objective of the workshop was to spread awareness of latest technology and introduce students to their applications in real life. The screening of demo videos of different types of robots such as line follower robot, obstacle avoider robot, edge detector robot etc. was done. It was received by the students with great enthusiasm. Line follower robot was demonstrated and an advantage of use robots over human force was highlighted during this session. Also, Robo Soccer was demonstrated where the bots were handled by a few students volunteers. Their excitement was out of the world. Combat bots were also operated by the students. This display of future generation technology to students received huge appreciation. The management of Sarvodaya High School was very delighted and expressed that such activities can bring remarkable difference in the career path of the students. This initiative taken by Goa College of Engineering was a grand success.





## MESA Council Inauguration

**Report by Suhail Khan, B.E. Mechanical**

The council inauguration of the Mechanical Engineering Students' Association of GEC was held on 17<sup>th</sup> August 2017 in Mining Department Seminar Hall. The programme commenced with National Anthem followed by lighting of the traditional lamp by the dignitaries. The Chief Guest for the function was Shri Shripad Bhat, Chief General Manager (Technical Services), Goa Shipyard Limited, Vasco.

After the floral welcome of the dignitaries, Dr. Rajesh Prabhu Gaonkar (Head of Mechanical Engineering Dept., GEC) formally welcomed the gathering. He also said that this was MESA's Silver Jubilee year and spoke about the role of MESA council in conducting various activities. Principal Dr. R.B. Lohani shared his positive views about Mechanical engineering department and its students. He expressed his enthusiasm



towards participating in the MESA activities and extended his full support to the MESA council. He concluded by wishing success for the new council. Then the new council was introduced by Mr. Shubham H.S. (General Secretary, MESA). The badge ceremony followed. Badges were handed over by the Chief Guest, the Principal, the Head of Department and the Staff Advisor. It was followed by oath taking ceremony of the newly elected council. The oath was administered by Prof. Milind Sakhardande.

Finally it was time for the Chief Guest to address the gathering. He shared his experience and kind words with the students and urged the students to participate in competitive exams. He also spoke about importance of time management and how one can make good use of the technology. A token of gratitude was presented to the Chief Guest by the Principal. The vote of thanks was proposed by Mr. Saeel Gawas (Chairman, MESA). MESA successfully organized events



such as workshop on robowars and introduction to go kart, technical quiz, photography competition and sports activities; which got positive feedback from many students.

## ISHRAE Council Inauguration

**Report by Jason D'Costa (President ISHRAE GEC chapter)**

The installation ceremony of the Indian Society of Heating Refrigeration & Air Conditioning Engineers (ISHRAE)GEC student chapter was held on 18<sup>th</sup> August 2017 at Mining Department seminar hall. The program commenced at 15:00 hrs & ended at 17:00 hrs. The program was compered by Mr. Pratik Joshi. Firstly the programme commenced with National Anthem followed by lighting of the ceremonial lamp by the dignitaries namely Mr Hemant Bhandari (The Regional Director), Mr. Michael Martins (President ISHRAE GOA Chapter), Mr. Milind Sardessai (Student Chair ISHRAE Goa), Dr Akshay Nigalye (Officiate HOD Mechanical), Prof Milind Sakhardande (Staff Advisor), Mr Prakash Naik (Immediate Past President ISHRAE GOA) & Mr Jason D'Costa (President ISHRAE GEC)

Miss Divya Chari welcomed the delegates & the mechanical department faculty with a token of gratitude. Following which our officiate HOD Dr Akshay Nigalye escorted the dignitaries to the dias. Mr. Jason D'Costa (President ISHRAE) GEC escorted Mr. Milind Sardessai to the dias.



A movie about ACREX was featured during the ceremony. Prof. Akshay Nigalye formally addressed the gathering. Our chief Guest Shri Hemant Bhandari put forth the various qualities inculcated into members who are part of ISHRAE. Shri Michael Martins threw light on the various opportunities ISHRAE has in store for the future. Shri Milind Sardessai shared his experience with us along with some examples of students who were successful because of ISHRAE. Moreover a brief overview about Job Junction & various activities organized by ISHRAE GOA chapter was discussed. After the inspiring words of the dignitaries the installation of the new committee had commenced. Shri Hemant Bhandari administered the oath to the committee. Mr. Jason D'Costa (President), Mr. Akash Patravali (Secretary), Mr Shreyas Parab (Treasurer) and the executives Nanday Kerkar, Imatiyaz Bepari, Akash Hiremath and Akshay Gandhi.

Following which Mr. Anish Souza spoke on 'Primer in Solar Power'. The members where highly inspired by the potential solar power had as a green energy initiative. Also Solar power as a means of income was discussed. Eventually Mr. Akash Patravali proposed the vote of thanks to all those present. Refreshments were served at the end of the ceremony.





## MESA activity

Saurabh Raikar, Assistant Professor (Contract) in Mechanical Engineering Department, engaged workshop on AutoCAD for Mechanical Engineering Students of the department on 19<sup>th</sup> August 2017. A One-day Workshop on 'AutoCAD basics' was conducted by Mechanical Engineering Students Association (MESA), Goa College of Engineering on Saturday, 19th August 2017. It was organized for the Second Year Mechanical Engineering & Mining Engineering Department students. AutoCAD is the basic software used for Machine Drawing & Design, thus it is a very important tool for the Departments engaging this subject. Prof. Saurabh Raikar was the instructor for the workshop. In all 78 Students attended the program. The workshop covered the basics of AutoCAD Tools such as Interaction, Drawing, Modify, Annotation, etc.



## Felicitation of Prof Rajesh Prabhu Gaonkar

Prof. Rajesh Prabhu Gaonkar was presented with Dr. J. M. Mahajan Award for the year 2016-17 by Indian Institution of Industrial Engineering. This was awarded during the inaugural function of the 59<sup>th</sup> IIIE National Convention and International Conference on "Manufacturing and Industrial Engineering" at Aurangabad on 14<sup>th</sup> September 2017. This award is presented to Prof. Rajesh for contributing substantially to the spread/ propagation of Industrial Engineering in Education i.e. in Institutes and in University. This was presented by Prof. Prem Vrat, Former Director, IIT Roorkee.



## IIIE Annual General Body Meeting



Annual General Body Meeting of Indian Institution of Industrial Engineering (IIIE), Goa Chapter was held on 24<sup>th</sup> September 2017. President of IIIE, Goa Chapter, Shri Vivek B. Kamat chaired the meeting. The meeting was attended by Chairman Dr. Suraj Rane, Secretary Dr. Vinay Shiroadkar, Treasurer Mr. Vinayak Nayak, Jt. Secretary Mr. Suraj Marathe among others. The routine proceedings of the meeting was carried out during the AGM.

## Dussehra Pooja

On the occasion of Dussehra on 29<sup>th</sup> September 2017, the department faculty did pooja of machinery in the I.C. engine laboratory. All the teaching, non-teaching staff and few students seen gathered in the laboratory.



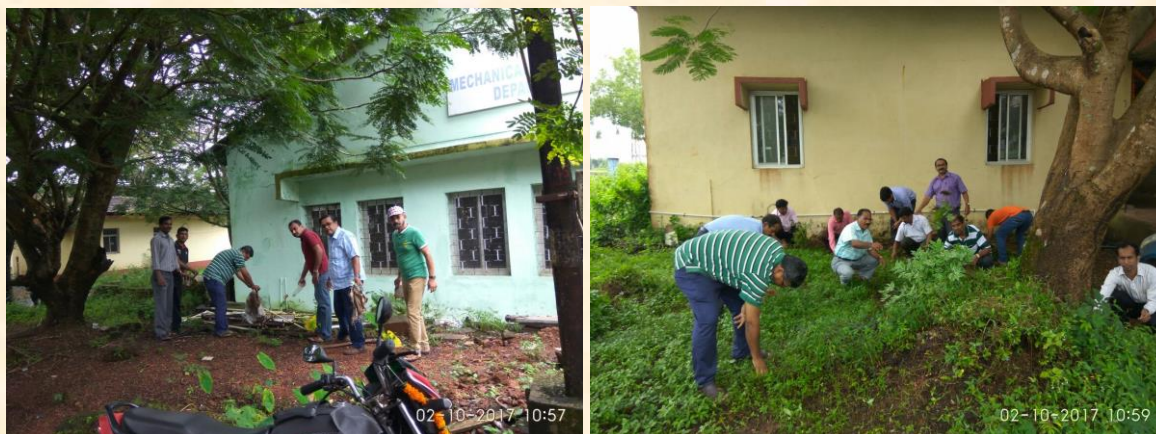
- Shri Milind Sakhardande and Shri Mahesh Caisucar presented their PhD seminar to Doctoral Research Committee through Skype on 29<sup>th</sup> September 2017.





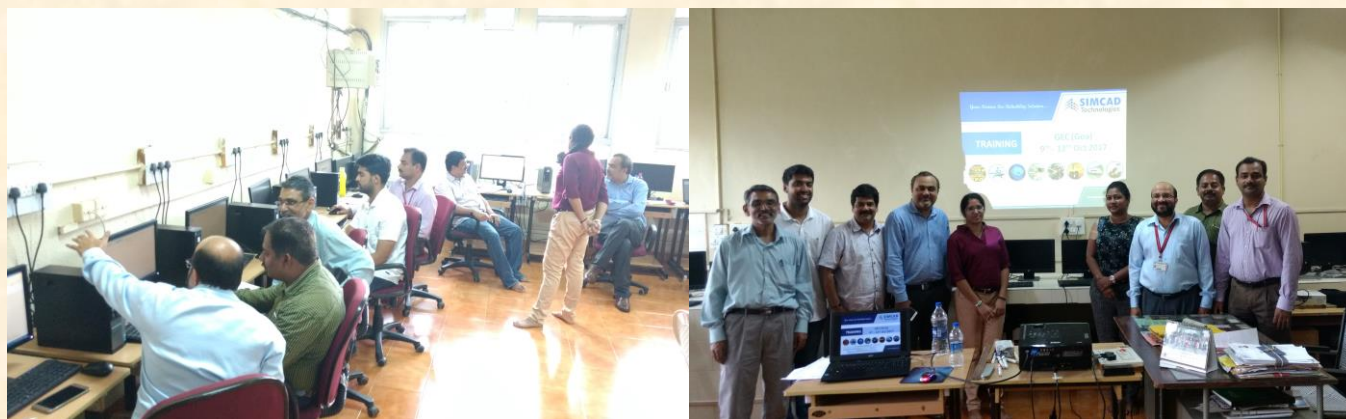
## Cleanliness drive at GEC

Swachh Bharat Cleanliness drive in the college campus on 2<sup>nd</sup> October 2017 from 9.00 am to 1.00 pm. After the internal cleaning of the offices, the garbage in the form of plastic, bottles, papers etc. was collected from the area surrounding the Department and Workshop and also near Gymkhana.



## ISOGRAPH Training

Isograph software, featuring tools to solve complex reliability, safety and availability problems was procured in Industrial Engineering lab in the month of January 2017. The ISOGRAPH software training “Basics of Reliability Along with Isograph Suite of Products” was conducted for the department faculty from 9<sup>th</sup> to 12<sup>th</sup> October 2017 by SIMCAD Technologies. Following faculty attended the training programme: Prof. Rajesh Prabhu Gaonkar, Prof. Suraj Rane, Dr. Mahesh Dhawalikar, Shri Milind Sakhardande, Dr. Shridhar Mhalsekar and Shri Saurabh Raikar



## Visit to the Department

Prof. Krishna Jonnalagadda from Mechanical Engineering Department, IIT Bombay visits the Material Testing Laboratory. A demonstration of torsion test on aluminum bar to determine the modulus of rigidity,  $G$  was conducted.





## MESSERGI Activity (Diwali Exhibition)

The Mechanical Engineering Students' Association (MESA) had started an initiative in 2014, known as MESSERGI (Mechanical Engineering Students' Social and Educational Responsibility and Green Initiative). Under this initiative, an activity is taken up every year for the social cause. The Diwali Exhibition-cum Sale was organised by students of MESA council 2017-18 and the Mechanical Engineering Department of GEC on 12<sup>th</sup> and 13<sup>th</sup> October 2017. The sale items were made by specially abled students of Gujarati Samaj Educational Trust Special School, Aquem, Margao, Goa. Items consisted wide range of diyas, candles, lanterns, decorative items, cardboard files, paper bags etc., which were kept on display in the college main building premise.

The exhibition-cum sale was inaugurated by our Honourable Principal Dr.Vinayak Shet and HMED Dr.Rajesh Prabhu Gaonkar. Faculties and students from different branches actively participated and supported the social cause. Students of MESA council and mechanical engineering dept. gave their best to make the event a success.

We would like to thank Shri Prashant of Gujarati Samaj Educational Trust Special School, for supporting us. The programme was successfully conducted. After the exhibition was over, all the remaining items and the money was successfully handed to Gujarati Samaj Educational Trust Special School.





## **T.E.Mechanical students at Sneha Mandir (MESSERGI Activity)**

To express solidarity with the old and desolate, we the students of T.E. Mechanical Engineering, GEC, paid a visit to an old age home in Ponda. When we reached inside the building, we saw that all the elderly folk were sitting in a room waiting eagerly for us. We would have never found a better time for our visit as Diwali was just 5 days away. They were excited to have us with them and they looked cheerful, perhaps because they could see the reflection of their grandchildren on our faces. Their love and affection for the young was awoken in their hearts. After the arrival at the old age home, all the students seated themselves down, and melodious songs were sung by some of the students. This rejuvenated their drooping spirit and filled the old hearts with joy and content. We also organized games for them like housie and Pictionary which they really enjoyed.

The caretaker of the old age home was really touched by our presence and said, "I appreciate the fact that the young generation is taking interest and coming to spend a little time with the old people here in this old age home. It is a great initiative taken by the college authorities and the students". She also asked us to pay them another visit on New Year's Eve. Before leaving for college all the students gifted 'Diyas' and fruits to the elderly as a token of their love, and promised that they will visit them again.

## **Latex for B.E.Mechanical students**

A LaTeX training session was conducted by Shri Sanket Shet, Assistant Professor (Contract) in Mechanical Engineering Department for the final year mechanical students on 16<sup>th</sup> October 2017 from 2 to 5 pm in IT department seminar hall with a main aim of providing the basic idea about the usage of LaTeX software for report writing. LaTeX is a high-



quality typesetting system; it includes features designed for the production of technical and scientific documentation. LaTeX software knowledge is required for the students as they are required to submit the final year project report in LaTeX format. Over 60 students from final year attended the workshop. The training session concluded around 5 pm, covering all the important knowledge about LaTeX and doubt clearing session at the end.

## Seminar on Ergonomics at Workplace

Indian Institution of Industrial Engineering [IIIE], Goa Chapter organised a seminar on “Ergonomics at Workplace” on 26<sup>th</sup> October 2017 at 2.30 pm at Goa College of Engineering, Farmagudi. The speaker for the occasion was Dr. Venkatesh Nevagi, MBBS, MD, FPCI, Interventional Pain Physician and Director, Padma Spine and Pain Centre, Margao-Goa. The seminar was arranged for teaching and non-teaching staff of educational institutes in Goa. Dr. Nevagi enlightened the audience on causes of pain in the body and how to overcome it. He also spoke on the recommended sitting and standing postures. Different parts of Vertebrae and types of pain originating from it was explained using its model.

The seminar was followed by demonstration of Physiotherapy exercises by Dr. Rhona Carvalho. Live demonstrations were performed on participant on physiotherapy exercises, which were appreciated by the audience. Participants interacted with doctors on various types of pain which they experienced during their lifetime. A total of 40 participants from various educational institutes in Goa attended the seminar

Dr. V. N. Shet, Principal, GEC, presented memento to Dr. Venkatesh Nevagi, while Prof. Suraj Rane, Chairman of IIIE Goa Chapter presented memento to Dr. Rhona Carvalho in token of appreciation for contribution to make India pain-free country. Shri. Suraj Marathe, Hon. Joint Secretary IIIE Goa chapter compered the event. The seminar was partly sponsored by Infiniti Modules, Pilerne, Bardez Goa.





## Ethics and Motivation Talk

**Report by Raj Lotliker**

A talk on “Ethics and Motivation” was organized by Mechanical Engineering Department and Mechanical Engineering Students Association (MESA) of Goa Engineering College for S.E. Mechanical Engineering students on 31<sup>st</sup> October 2017 in the Mining Seminar Hall between 11.30 am to 1.00 pm. This was an interactive session by Prof. Vishwanath Joshi, a senior faculty from Agnel Polytechnic, Verna which was attended by students of SE Mechanical along with other students. Faculty members of Mechanical Department were also present. The session began with a talk by Prof. Joshi on Ethics and was followed by quality interaction with the audience. This was followed by questions from the audience to which the speaker responded. The speaker was presented with his portrait made by Mr Nidesh Mahalunkar, a student of SE Mechanical. The session was organized with good team work from SE Mechanical Students. Mr. Sunay Dharwadkar, Mr. Vardhan Kamat, Mr. Emmanuel De Souza, Mr. Shazeb Shaikh and Mr Sharven Shenvi Kerkar took active part in organizing this event. Mr. Mandar Shirodkar was the anchor for the programme while Mr. Kedar Dicholkar welcomed the audience with an invocation. Mr. Raj Lotliker introduced the speaker and Mr. Mandar proposed the vote of thanks.





## Visit to M/s Shantha Pumps

Prof. Rajesh Prabhu Gaonkar and Dr. Shridhar Mhalsekar visit M/s Shantha Pumps at Velim on 1<sup>st</sup> November 2017. The proprietor, alumnus of GEC, Shri Abhay Keny warmly welcomed the faculty and showed around the manufacture and assembly of centrifugal pumps, electric motors, submersible pumps at their plant.



## Education-Industry Connect Programme at DTE, Porvorim

“Education-Industry Connect” initiative by GCCI Education Committee in association with Directorate of Technical Education; Govt. of Goa shortlisted project work of final year engineering students across Goa. The presentation of selected projects took place at DTE, Porvorim on 03<sup>rd</sup> November 2017. The project “Design & Fabrication of Automatic Wood Working Machine with Manual Interface” under the guidance of Prof. Akshay Nigalye had been pre-selected from Mechanical Engineering Department for the presentation.

## Syllabus Revision Meeting



Dr. Rajesh Prabhu Gaonkar, Professor and Head, Mechanical Engineering & Dean Faculty of Engineering, Goa University and Dr. Suraj Rane, Professor, Mechanical Engineering & Chairman Board of Studies, Mechanical Engineering, conducted meeting on syllabus revision of higher semesters of RC 2016-17 syllabus of BE Mechanical Engineering. The meeting was attended by teachers of GEC, PCCE, DBCE and AITD. They deliberated on the contents to be included in the new syllabus.



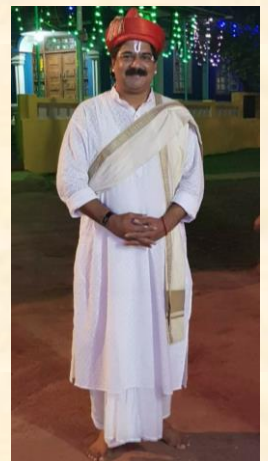
## Refurbishment in Dynamics of Machinery Laboratory

The refurbishment of the old demo models in the Dynamic Lab was undertaken by the Third Year Mechanical Engineering students as a term project while undergoing the course of Theory of Machines. The refurbishment included dismantling the entire demo mechanism, replacing worn out and damage parts, lubricating and painting them. This gave students a basic idea about the assembly and fabrication type of work. It also helped in improving the technical skills of the students and creating a sense of unity and team work among the students. The work was carried out under the guidance of Prof. Mahesh Caisucar and Shri Kalidas Sawant. The idea was conceptualized by Prof. Rajesh Prabhu Gaonkar, HMED.



## Kirtan performance at Datta Mandir, Sanquelim

A special entertainment programme called '*Lalit Karyakram*' is held on the second night of Datta Jayanthi in Sanquelim. In this traditional entertainment programme Shri Milind Sakhardande has been doing the role of *Kirtankar* for over a decade and subject of his kirtan include shira, ladoo, chai, khatkhate etc. The kirtan on "Sheera" was performed on 4<sup>th</sup> December 2017. This humorous act is almost of 1 hour duration. Performing in such traditional cultural programme even in modern times adds feather to his cap for being involved in such extra curricular activities.



## New Equipment Addition in the Department

In **Fluid Mechanics Laboratory**, the following two experimental set ups were added.

- 1) Determination of meta centric height of ship model.
- 2) Determination of centre of pressure apparatus.

In **Engineering Measurements and Metrology Laboratory**, the following instruments have been procured:

- 1) Digital Vernier Calliper (2 nos.)
- 2) Digital Outside Micrometer (2 nos; range in mm)
- 3) Digital Outside Micrometer (2 nos; range in inch)
- 4) Dial Vernier Caliper ( 2 nos)
- 5) Combination Square set
- 6) Universal Bevel Protractor (2 nos)
- 7) Outside Micrometer with Vernier Scale on Sleeve (2 nos; scale in mm)
- 8) Outside Micrometer with Vernier Scale on Sleeve (2 nos; scale in inch)
- 9) Whitworth Screw Pitch Gauge (2 nos)
- 10) Metric Screw Pitch Gauge (2 nos)

In **Material Testing Laboratory**, the following equipments have been procured:

- 1) Erichsen Cupping Tester
- 2) Rotating Beam Fatigue Testing Machine
- 3) Analog Mechanical Torsion Testing Machine





## **Journal Papers Published by Faculty**

- V.Sawant, M.Dhawalikar, P.K.Srividhya and V.Mariappan, “Reliability Analysis of Induction Motor Using Stochastic Modeling”, International Journal of Scientific research, 14(1), 366-373, 2017.
- V. Mariappan, Dhawalikar Mahesh, P.K. Srividhya and Kurtikar Vishal, “Semi Markov Model for Optimizing Availability of Testable Systems”, International Journal of Pure and Applied Mathematics, Volume 114(11), 83-93, 2017.
- Raghavendra D. Naik & Shridhar Mhalsekar, Vibration Attenuation of a Nonlinear Oscillator by using Bound on the system, Mechanics Research Communications, Volume 85, 2017, 12-15.
- Mahesh Caisucar, Rajesh Prabhu Gaonkar, Uncertainty Identification in New product Development, Industrial Engineering Journal, Volume X & Issue no.12, pp. 41-45, December 2017.

## **Papers Presented by Faculty and M.E.Students**

- Milind J. Sakhardande, Rajesh Prabhu Gaonkar “A Framework for Identifying Factors Affecting Facility Location in Developing Countries Using PESTLE” in abstract Proceedings of the International Conference on manufacturing and Industrial Engineering (ICMIE-2017), 14 - 16 September 2017, Aurangabad, pp. 71-72.
- Jagannath Hirkude, Vivek Belokar, Techno-economic conversion of waste fried oil into biodiesel through transesterification, at 1<sup>st</sup> International Conference on Mechanical, Material and renewable Energy at Sikkim Manipal Institute of Technology on 10<sup>th</sup> December 2017.
- Jagannath Hirkude, Anukool Nigalye and Akshay Nigalye, Performance Prediction of CI Engine Fueled With Waste Fried Oil Methyl Ester-Diesel Blend Using Artificial Neural Network at 6<sup>th</sup> ICAER 2017 at IIT Bombay, December 2017.
- Jagannath Hirkude, Vivek Belokar, Investigations on Performance of CI Engine with Waste Palm Oil Bio-Diesel Blends Using Response Surface Methodology at 6<sup>th</sup> International Conference on Advances in Energy Research at IIT Bombay on 12<sup>th</sup> December 2017.
- Narayan S. Gauns, Mahesh M. Caisucar, Rajesh S. Prabhu Gaonkar, Gajesh G. Usgaonkar, Application of Fuzzy TOPSIS in Customizing Generator Sets, in proceedings of the 4<sup>th</sup> International Conference on Computational Methods in Engineering and Health Sciences, pp-55, 19-20 December 2017, Manipal Institute of Technology, Manipal, Karnataka.
- Milind J. Sakhardande, Rajesh Prabhu Gaonkar “Identification and Ranking of Factors Affecting Facility Location: A ‘Make in India’ Challenge”, in proceedings of the 4<sup>th</sup> International Conference on Industrial Engineering (ICIE-2017), 21 - 23 December 2017, SVNIT, Surat, pp. 359-364.
- Mahesh Caisucar, Rajesh Prabhu Gaonkar, Fuzzy TOPSIS for Initial Idea Screening in Bus Body Building Industry, in proceedings of the 4<sup>th</sup> International Conference on Industrial Engineering (ICIE-2017), 21-23 December 2017, SVNIT, Surat, pp. 1081-1085.



- Pratik D. Sawardekar, Milind J. Sakhardande, Rajesh S. Prabhu Gaonkar and Gajesh G. Usgaonkar  
“Application of MCDM in Sourcing Decisions of Manufacturing Sector: A Fuzzy SAW and TOPSIS Approach”, in proceedings of the 4<sup>th</sup> International Conference on Industrial Engineering (ICIE-2017), 21 - 23 December 2017, SVNIT, Surat, pp. 1091-1095.



## Workshop/Conferences Attended by Faculty

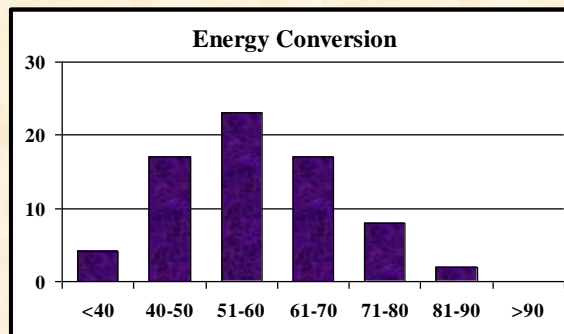
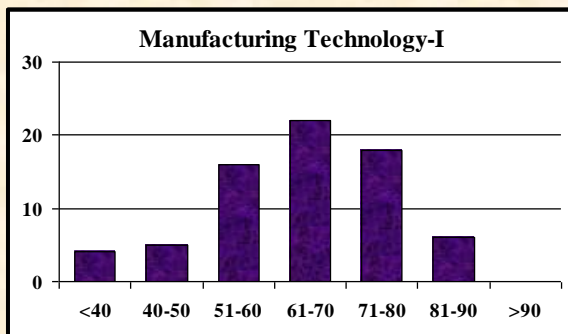
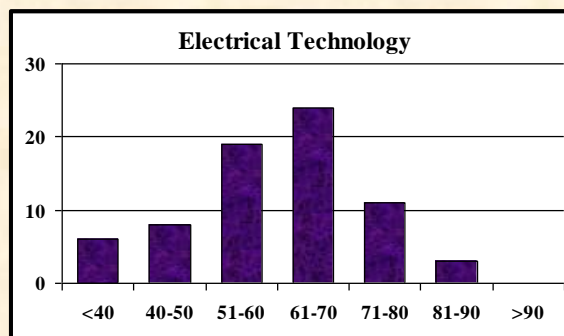
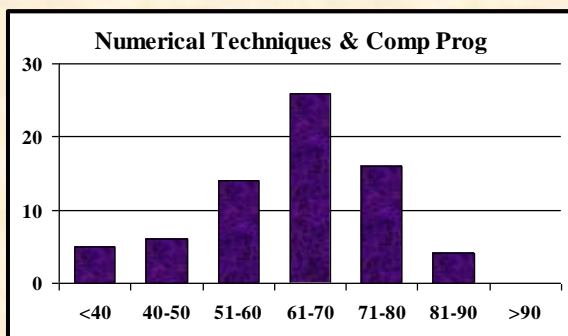
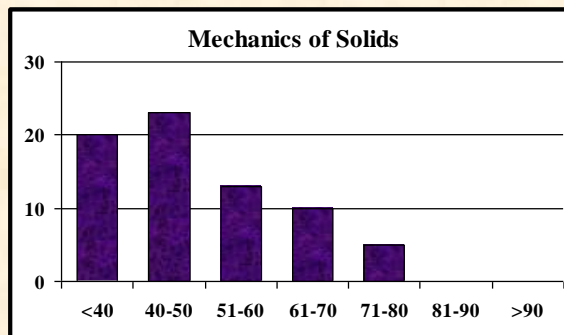
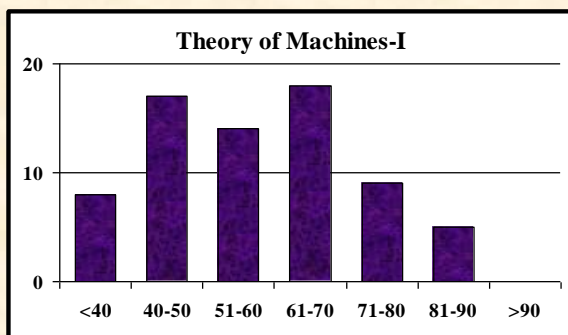
- Prof. Rajesh Prabhu Gaonkar, Prof. Vinay Shirodkar and Dr. Shridhar Mhalsekar attended NBA Accreditation of Programmes Guidelines and Quality Management workshop from 17<sup>th</sup> to 21<sup>st</sup> July 2017 at National Institute of Technical Teacher's Training and Research (NITTTR) Goa Extension Centre, Porvorim.
- Shri Harichandra Chandekar attended one week workshop on Student Evaluation and Assessment conducted by NITTTR Goa Ext. Centre, Porvorim from 24<sup>th</sup> to 28<sup>th</sup> July 2017
- Shri Milind Sakhardande and Shri Harichandra Chandekar attended two week AICTE approved FDP on "Foundation Program in ICT for Education (FDP101x)" conducted by IIT Bombay from 3<sup>rd</sup> August to 7<sup>th</sup> September 2017.



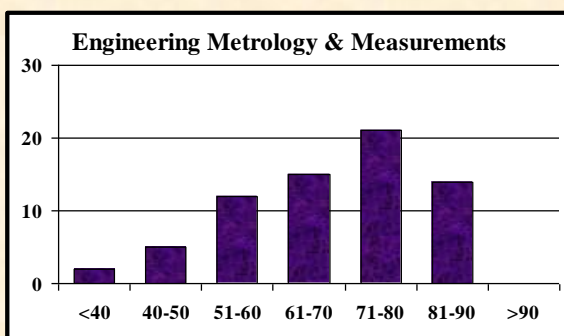
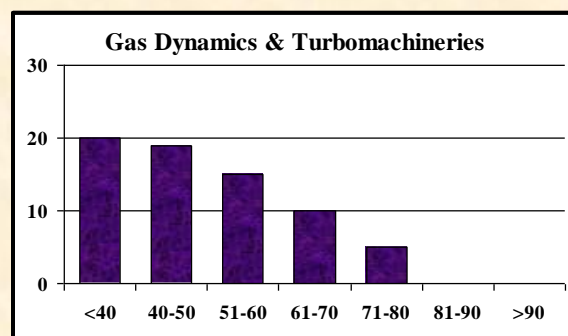
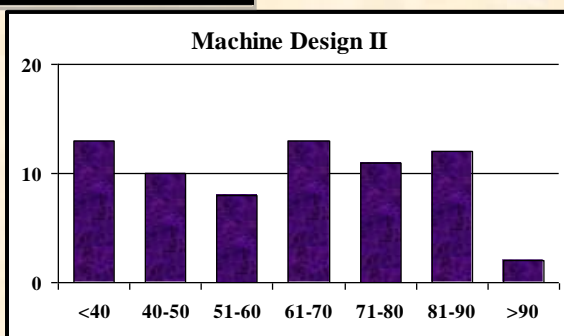
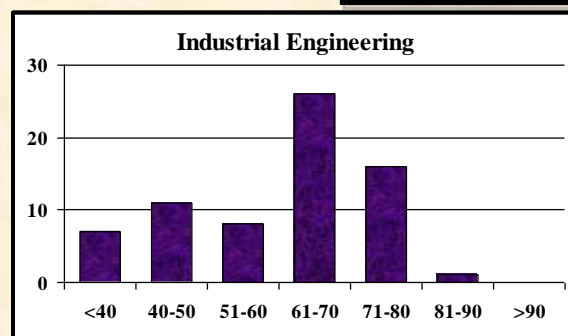
- Shri Milind Sakhardande and Shri Harichandra Chandekar attended two week AICTE approved FDP on "Pedagogy for Online and Blended Teaching-Learning Process (FDP201x)" conducted by IIT Bombay from 14<sup>th</sup> September to 12<sup>th</sup> October 2017.
- Shri Milind Sakhardande attended one week workshop on Emotional Intelligence conducted by NITTTR Goa Ext. Centre, Porvorim from 27<sup>th</sup> November to 1<sup>st</sup> December 2017.
- Dr. Raghavendra Naik attended 62<sup>nd</sup> Congress of Indian Society of Theoretical and Applied Mechanics (ISTAM) 2017 from 15<sup>th</sup> to 18<sup>th</sup> December 2017, held at Osmania University Hyderabad.
- Prof. Rajesh Prabhu Gaonkar has reviewed research papers for the following International Journals:
  1. International Journal of System Assurance Engineering and Management (Springer),
  2. Industrial Engineering Journal (IIIE),
  3. Journal of Applied Statistics,
  4. Journal of Engineering for the Maritime Environment,
  5. Transactions on Intelligent Transportation Systems,
  6. International Journal of Pressure Vessels and Piping (Elsevier),
  7. Computers & Industrial Engineering (Elsevier) and
  8. Ocean Engineering (Elsevier)

# Result Analysis May/June 2017 (Number of student's v/s Range of marks)

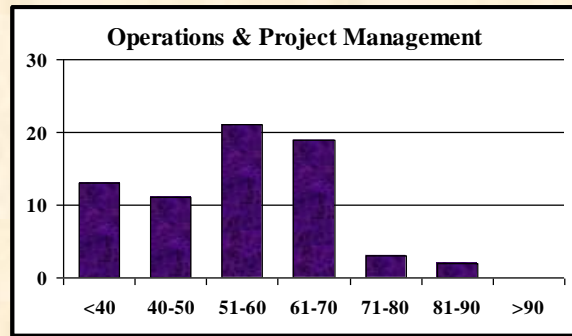
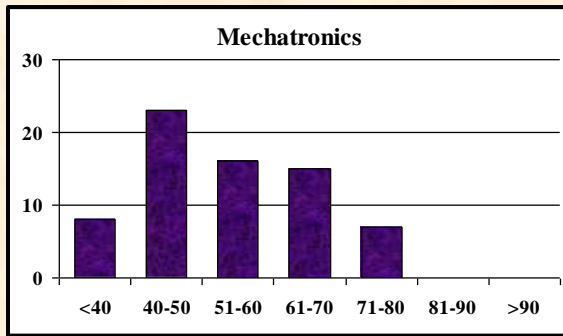
## SEMESTER IV



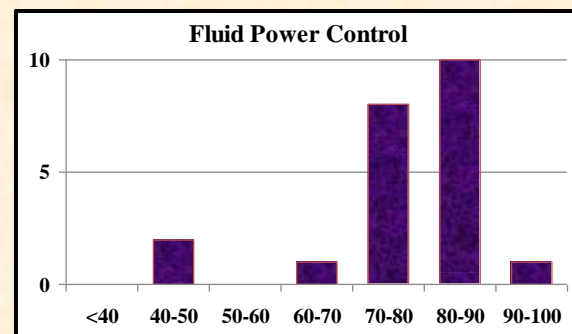
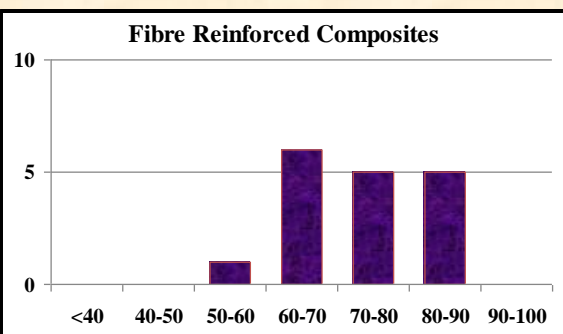
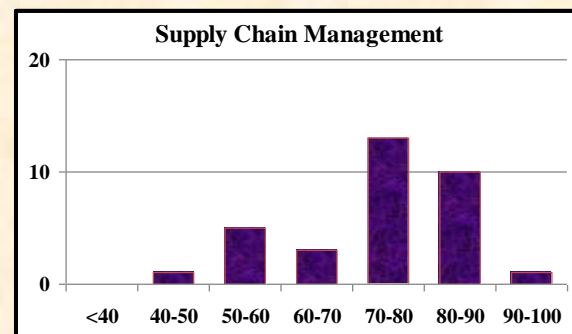
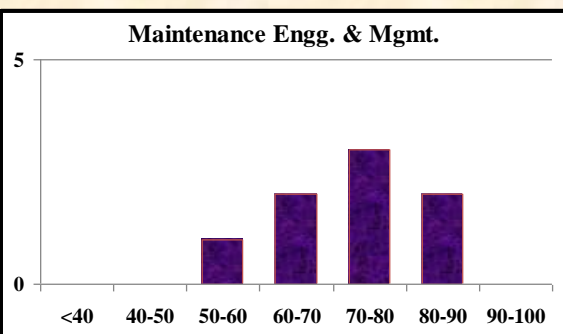
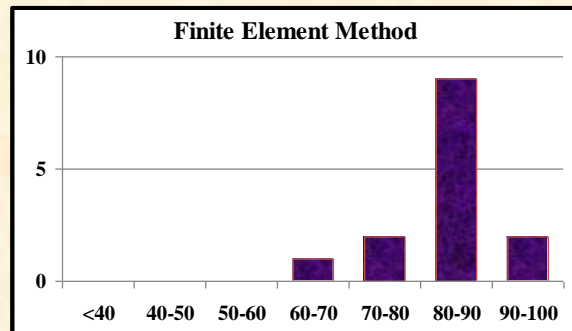
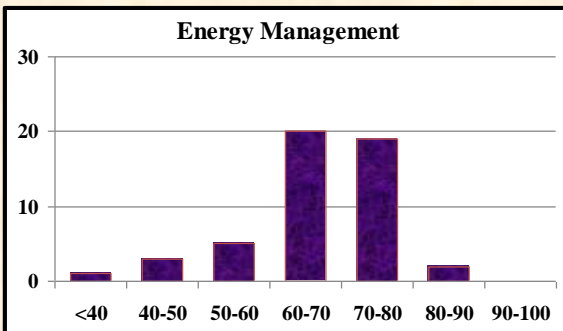
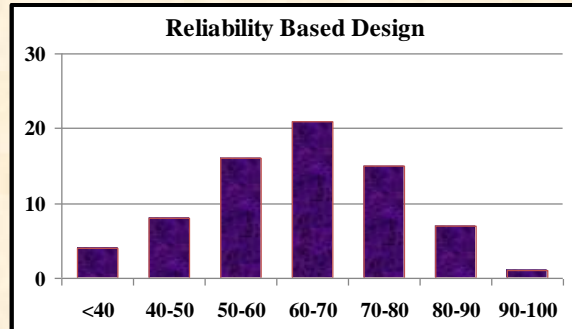
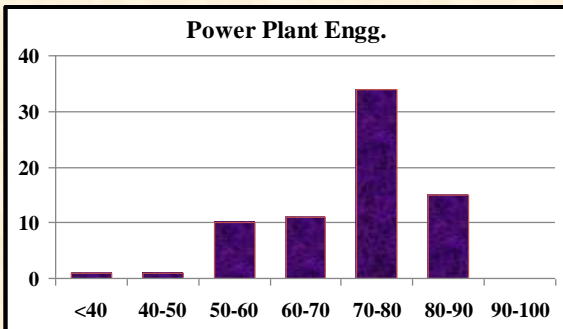
## SEMESTER VI







## SEMESTER VIII



## Student/Faculty Sports Section

For the inter-collegiate tournaments conducted by Sports Section, Goa University, following students from Mechanical Engineering Department represented the college. The sports conducted during the even semester (2<sup>nd</sup> phase) of the academic year 2017-18 include Football, Table-Tennis, Badminton, Lifting etc.

Sr.no.	Name	Class	Event	Performance
1	Belgaonkar Sarvesh	FE	Football	1 <sup>st</sup> Round
2	Dhulaphar Prathamesh	FE	Table-Tennis	Quarter-Finals
3	Mito Moyong	SE	Football	1 <sup>st</sup> Round
4	Monil Trisco Peter	SE	Football	1 <sup>st</sup> Round
5	Bandodkar Kalpesh	TE	Table-Tennis	Quarter-Finals
6	Anmol Shukla	TE	Table-Tennis	Quarter-Finals
7	Rane Nilesh	TE	Badminton	Semi-Finals
8	Walvekar Akshay	BE	Weightlifting	Bronze (3 <sup>rd</sup> Place)
9	Naik Sohan	BE	Powerlifting	1 <sup>st</sup> Round



## Internship Data for July 2017 of T.E.Mechanical Students

Name	Company Name	Period	
Kalpesh R. Bandodkar	Goa Shipyard Ltd., Vasco-da-Gama	26-Jun-17	15-Jul-17
Sai Vengurlekar	Goa Shipyard Ltd., Vasco-da-Gama	26-Jun-17	15-Jul-17
Pratik Prasad Hoble	Goa Shipyard Ltd., Vasco-da-Gama	26-Jun-17	15-Jul-17
Jayesh Janardan Sawant	Goa Shipyard Ltd., Vasco-da-Gama	26-Jun-17	15-Jul-17
Sarang S. Navelkar	Goa Shipyard Ltd., Vasco-da-Gama	26-Jun-17	15-Jul-17
Saivijay V. Kundaikar	Goa Shipyard Ltd., Vasco-da-Gama	26-Jun-17	15-Jul-17
Siddharth S. Shinde	Goa Shipyard Ltd., Vasco-da-Gama	26-Jun-17	15-Jul-17
Deepesh Raikar	Goa Shipyard Ltd., Vasco-da-Gama	26-Jun-17	15-Jul-17
Akash Phadte	Goa Shipyard Ltd., Vasco-da-Gama	26-Jun-17	08-Jul-17
Saiesh Powar	Goa Shipyard Ltd., Vasco-da-Gama	26-Jun-17	08-Jul-17
Shreyas Naik	Goa Shipyard Ltd., Vasco-da-Gama	26-Jun-17	08-Jul-17
Vignesh Usapkar	Goa Shipyard Ltd., Vasco-da-Gama	26-Jun-17	08-Jul-17



Krupesh Kaskar	Goa Shipyard Ltd., Vasco-da-Gama	26-Jun-17	08-Jul-17
Raghuvir Naik	Goa Shipyard Ltd., Vasco-da-Gama	26-Jun-17	08-Jul-17
Rohit Naik	Goa Shipyard Ltd., Vasco-da-Gama	26-Jun-17	08-Jul-17
Amre Rounak Rammurthi	Goa Shipyard Ltd., Vasco-da-Gama	30-Jun-17	15-Jul-17
Francis Floriano Alphonso	Goa Shipyard Ltd., Vasco-da-Gama	26-Jun-17	10-Jul-17
Shubham V.Samant	I.F.B. Appliances, Verna Ind Estate	26-Jun-17	15-Jul-17
Allan D.Rebello	I.F.B. Appliances, Verna Ind Estate	26-Jun-17	15-Jul-17
Sarvesh Sadhale	I.F.B. Appliances, Verna Ind Estate	26-Jun-17	15-Jul-17
Gaurav Thakur	Prestress Wire L.L.P, Rakholi, Silvasssa	26-Jun-17	15-Jul-17
Shubham R. Chowgule	Vedanta Sesa Goa Ltd., Amona	26-Jun-17	15-Jul-17
Shubham A. Kale	Vedanta Sesa Goa Ltd., Amona	26-Jun-17	15-Jul-17
Saurabh K. Barve	Vedanta Sesa Goa Ltd., Amona	26-Jun-17	15-Jul-17
Poornapragya Joshi	Vedanta Sesa Goa Ltd., Amona	26-Jun-17	15-Jul-17
Parth P. Kunkolienkar	Vedanta Sesa Goa Ltd., Amona	26-Jun-17	15-Jul-17
Sharmad Madkaikar	Vedanta Sesa Goa Ltd., Amona	26-Jun-17	15-Jul-17
Abhijeet Mordekar	Vedanta Sesa Goa Ltd., Amona	26-Jun-17	15-Jul-17
Siddhant Naik	Vedanta Sesa Goa Ltd., Amona	26-Jun-17	15-Jul-17
Sampada V. Shendure	Vedanta Sesa Goa Ltd., Amona	26-Jun-17	15-Jul-17
Manish Rivankar	Vedanta Sesa Goa Ltd., Amona	26-Jun-17	15-Jul-17
Jayesh Mayenkar	ACGL, Valpoi, Sattari	26-Jun-17	08-Jul-17
Rohit Diukar	ACGL, Valpoi, Sattari	26-Jun-17	08-Jul-17
Shankar Chari	ACGL, Valpoi, Sattari	26-Jun-17	08-Jul-17
Ajay Gaude	ACGL, Valpoi, Sattari	26-Jun-17	08-Jul-17
Macgyvir Custodio D'Cunha	Chowgule Industries Pvt. Ltd., Taleigao	26-Jun-17	12-Jul-17
Nissar Ahammad B. Sutar	Chowgule Industries Pvt. Ltd., Taleigao	26-Jun-17	12-Jul-17
Yatin Mahesh Sardessai	Zuari Agro Chemicals Ltd., Zuarinagar	03-Jul-17	15-Jul-17
Anish Jaipal Tari	M/s Rututek Enterprises, Madkai Ind Est	01-Jul-17	15-Jul-17
Dattaraj C. Vaingankar	M/s Rututek Enterprises, Madkai Ind Est	01-Jul-17	15-Jul-17
Vineet Vijaykumar Surlakar	M/s Rututek Enterprises, Madkai Ind Est	01-Jul-17	15-Jul-17
Vighnesh V. Alavani	M/s Rututek Enterprises, Madkai Ind Est	01-Jul-17	15-Jul-17
Srinath G. Velguenkar	M/s Rututek Enterprises, Madkai Ind Est	01-Jul-17	15-Jul-17
Prasanna Gaonkar	M/s Rututek Enterprises, Madkai Ind Est	01-Jul-17	15-Jul-17
Omkar Paranjape	Speed Engineering Solutions Pvt. Ltd.	26-Jun-17	15-Jul-17
Amey D. Prabhudesai	Sharayu TOYOTA, Colvale	26-Jun-17	08-Jul-17
Akshay Gandhi	Churi Electromech, Madkaim Ind Estate	26-Jun-17	15-Jul-17
Akash Dharwadkar	Churi Electromech, Madkaim Ind Estate	26-Jun-17	15-Jul-17
Vishal Sinari	Creative Mfg Solutions India Pvt. Tuem	27-Jun-17	15-Jul-17

Department faculty with Chief Guest during B.E. Project Exhibition on 24<sup>th</sup> July 2017



Robotics Workshop at Sarvodaya High School, Usgao



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