



Shri Vileparle Kelvani Mandal's

**Dwarkadas J. Sanghvi College of Engineering**  
(Approved by AICTE and Affiliated to the University of Mumbai)



# ACADEMIC REPORT

(July 2017-May 2018)



**DEPARTMENT OF  
PRODUCTIONENGINEERING**

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# **1. DEPARTMENT OF PRODUCTION ENGINEERING**

## **Vision**

To develop competent and socially sensitive technopreneurs for manufacturing and allied service sector.

## **Mission**

1. To strive for academic excellence in engineering and manufacturing technology, by fostering innovative learning processes.
2. To establish state of the art infrastructure in order to create technopreneurs to cater to the demands of industry.
3. To drive and achieve technical and professional competency by curricular, co-curricular and extracurricular interaction with industry, allied professional societies and other nodal agencies.
4. To mould the students as responsible and outstanding technical professionals with excellent personality traits and high ethical standards capable of facing challenges of the industry and society at large.

## **Program Educational Objectives:**

1. Impart fundamental concepts of engineering and production technology, inculcate analytical and application skills, orient to research methodologies and prepare graduates to tackle complex engineering problems.
2. Give exposure to principles and aspects pertaining to various management sciences, develop inter-disciplinary skills and instil an urge for knowledge enhancement.
3. Provide opportunities to acquire practical exposure through industry interaction.
4. Instil various soft skills and personality traits.
5. Bring awareness about professional ethics, social obligations, green expectations / sustainable development and mould graduates to pursue successful technical and professional career.

## **Program specific outcomes (PSOs):**

1. Candidates will be able to integrate issues related to design, manufacturing processes, tooling and assembly to resolve troubleshooting in manufacturing and achieve manufacturing effectiveness.
2. Candidates will develop competency in analyzing and improvising of manufacturing systems, operations and automation to achieve productivity enhancement.
3. Candidates will be able to explore various aspects pertaining to quality and bring about quality improvements through various tools and approaches in statistics, quality, reliability and experimental engineering.
4. Candidates will be able to apply appropriate managerial approaches in relevant areas of manufacturing to achieve continuous improvement and will be able to function effectively as a member or leader of a technical team.

### **About the Department:**

- Production Engineering Department of Dwarkadas J. Sanghvi College of Engineering was set up in 1994, the year in which the institute was established. The department has 14 full time well qualified faculty and 9 Non-Teaching staffmembers.
- All the laboratories are fully air-conditioned and are equipped with latest instruments and high end experimental setups, lab records, lab manuals, user manuals, journals etc. Relevant software are installed on all the desktops in laboratories.
- The department runs three professional student chapters viz. SAE, ISME, and ISHRAE which help to enhance the skills of the student and also to add value in the process of acquiring knowledge.
- **Courses offered** - B.E. Production Engineering. **Intake** – 60 Students.

## **2. STUDENT CHAPTERS**

Following is the report of various activities conducted by Student Chapters of Professional bodies in the college during the year. (A.Y. 17-18)

### **2.1 INDIAN SOCIETY OF MANUFACTURING ENGINEERS (ISME)**

#### **Seminar and Workshops**

##### **Talk on Quality Management**

Date: - **12<sup>th</sup> September , 2017.**

Organized by: -**Indian Society of Manufacturing Engineers**

Organized For: -**SE & TE Production and Mechanical Students**

Conducted by: - **Dr Tushar N Desai**

ISME started off its year with a bang by conducting its first seminar on Quality Management and its new philosophies and practices. It was conducted by Dr Tushar N Desai who is an esteemed professor of Mechanical Engineering Department in NIT Surat.

The seminar was conducted for students of all years of the Production and Mechanical departments in the seminar hall. All the seats were filled by the enthusiastic students who were waiting to learn more about quality management.

Dr Desai covered a range of topics from Kaizen to some numerical problems on production effectiveness. He also made the seminar interactive for the students by asking questions and telling them to read out some portions of the presentation.

The seminar was refreshing for all the students who learned the latest practices in quality management and after a brief Q&A session the seminar ended with Dr Desai reciting one of his meaningful poems.

## **Technical Talk on Digital Payments**

Date: - **15<sup>th</sup> September , 2017.**

Organized by: -**Indian Society of Manufacturing Engineers**

Organized For: -**SE & TE Production and Mechanical Students**

Conducted by: - **Mr. Sourabh Tomar**

ISME had organized a technical talk on digital payments on 15<sup>th</sup> September, 2017 on account of engineer's day so that the engineers know the importance of net banking. Technical talk was hosted by Mr. Sourabh Tomar, Sr. Manager and head of business intelligence of NPCI i.e. National Payments Cooperation of India.. Mr. Sourabh Tomar is a post graduate in sales and marketing from IIM Indore and a B.E. Computer science graduate from Rajiv Gandhi Technical University. This Talk was also attended by our very own principal Dr. Hari Vasudevan along with the Finance officer of NMIMS Mr. Karuna Bhaya and the CFO of SVKM, Mr. Anil Bapat. Students in this Technical Talk were educated on the necessity, importance and use of digital payments in today's economy after the effect of demonetization. He also enlightened us with different techniques of digital payments by suggesting us different applications and ATMs by which payments are possible by anyone anywhere. The talk was a unique mix of technical and business acumen, which was made highly interesting with videos and fun facts. It was a positive learning experience for the students and we hope to have many more interesting technical talks in the future.



**Mr. Sourabh Tomar & Dr.Hari Vasudevan during the event.**

## Talk on 3D Bio-printing

**Date:** - 25<sup>th</sup> October 2017

**Organized by:** - Indian Society of Manufacturing Engineers

**Organized for:** - SE & TE Production Engineering Students

**Conducted by:** - Dr. Rohan Shirwaiker

The students were delighted to witness the presence of **Dr. Rohan Shirwaiker** an Associate Professor in the Edward P. Fitts Department of Industrial and Systems Engineering and an Associate faculty of the Joint Department of Biomedical Engineering at North Carolina State University.

He received his BE in Production Engineering from D.J Sanghvi College of Engineering and MS and PhD in Industrial Engineering from Penn State University . On the basis of his vast source of knowledge and experience he took a session on **3D-Bioprinting of Tissues: The Confluence of Biomedicine and Manufacturing.**

Dr. Shirwaiker's research team focuses on design and scalable manufacturing technologies for engineered tissues. They study fundamental relationships between biomaterials and tissue manufacturing processes and their effects on the quality of engineered tissues, and develop new manufacturing strategies and medical products in collaboration with surgeons and other engineers.

First of all the students were taught what role the implantable medical products plays in the treatment of injuries and diseases and how conventional implantable medical devices are made out of metals and polymers using various process. Once implanted, the intent is for such engineered tissues to integrate within the body and replace the function of injured or diseased natural tissues. Several tissues such as bone, ear, knee meniscus, and bladder have been successfully engineered this way in research labs. The micro- and macro-scale design and 3D-bioprinting processes used to manufacture these tissues are highly interrelated, and have a significant impact on their quality and functionality.



Glimpses of Talk on 3-D Bio Printing Dr.Hari.Vasudevan giving memento to trainer (Right). Students listening attending seminar(Left).



# Union Budget – Decoded

Date: - **9<sup>th</sup> Feb, 2018.**

Organized by: -**ISME**

Organized For: -**SE & TE Production and Mechanical Students**

Conducted by: - **Mr. VikashMittersain, Mr. Jay Kalra and Mr. Amit Trivedi.**

“Knowledge is having the right answer and intelligence is asking the right question”

The students of DJSCOE got an opportunity to experience this right balance between knowledge and intelligence and this was only possible because of the 3 dynamic personalities that the panel consisted of - Mr. VikashMittersain, Mr. Jay Kalra and Mr. Amit Trivedi. Students interacted and discussed their questions regarding the Union Budget with them.



Glimses of the event

Mr. VikashMittersain is the president of India business group, Mr. Jay Kalra is a practicing chartered accountant, and Mr. Amit Trivedi is the co-founder at [www.investworks.in](http://www.investworks.in). These three were the perfect experts for the day as the topic for panel discussion was **UNION BUDGET – DECODED**.

The huge amount of experience, knowledge and skills helped them to cater the audience out there. The event started at 12:00 noon and lasted for 2 hours. A brief introduction about the topic of the day was given to the students. As the level of topic was getting intense, so were the discussion and the participation of the crowd. An active participation from the honorable principal as well as the students was eye catching. A series of questions was lined up for the panelists. The tougher the question was, the simpler they made it, decoded it and justified it. The way they explained it did not only attract the students' attention but also created a sense of responsibility for engineering students to take interest in topics like these. Questions asked and the level of interaction also impressed the panelists as it was beyond their expectations, according to one of the speakers.

This seminar thereby provided the students with a detailed justification of the union budget. One of the speakers marked that this seminar was not only a source of knowledge for the students but also created a sense of responsibility and awareness for them.



## Technical Event

### DJ NIRMITI- Igniting Manufacturing Renaissance

Date: - 20<sup>th</sup> & 21<sup>st</sup> March, 2018.

Organized by: -ISME

Organized For: -All Production and Mechanical Engineering Students

Dwarkadas J. Sanghvi College of engineering, one of the best colleges in Maharashtra was back with its technical fest DJ – NIRMITI. It's was organized by the ISME (Indian society of manufacturing engineers) committee of the college, consisting of young, talented individuals striving to keep the era of manufacturing alive and running with the same spirit, enthusiasm mixed with creativity. The principal of the college and also the president of ISME Dr. Hari Vasudevan is a constant support for these budding engineers, helping and encouraging them to perform activities as interesting as these. DJ-NIRMITI was held on 20-21 of March 2018. It was the perfect platform for all the technical as well as non-technical lovers in the field. A huge amount of participation wrote great stories of their success. Major 4 events grabbed everyone's eyes.



### Inaguration of DJ Nirmiti

#### **BRIDGE THE GAP**

This event as always had its own stories. Fun mixed with application is what was expected and the same what they received. A total of 47 teams were out there having filled with excitement having their eyes set on building the perfect bridge. After a heart throbbing effort the winner took it all having sustaining a weight of 19 kgs, breaking the record of last year



### Bridge the Gap

### **BUSINESS PLAN PRESENTATION**

Marketing is an inborn talent is what the participants proved out there. 13 out of the 27 participants were selected for the final round. Amazing advertising skills of the participants helped them cross their first level and then enter into the major part that was the B-plan presentation. Every participant crossed the level of organizer's as well as judges expectations.



**B-Plan Presentation**

### **PROJECT COMPETITION**

Another huge event was the project competition. A total of 63 teams of final year students enrolled for the contest, out of which 10 qualified for the finals. The final round was judged by Mr. M. J. Paleja, former CEO of L&T, China, and Dr. Atul Dhale from the production engineering department. Projects covered a variety of domains.



**Project Competition**

### **CADD CHALLENGE**

Designing is an art and how we engineers master it is what they saw in the past two days as CADD experts from their respective colleges faced each other off and cleared levels of the competition with ease.

MCQ was their first step towards winning it, and then the actual cadd challenge organized by officials from CADD centre helped them to pick the best of the lot. Difficulties increased with the passage of time, but the best had it all sort as their calm and confidence helped them secure their places on the podium. It was a tough one but at the same time exciting too



### **CADD CHALLENGE**

Prizes worth 50K were given to the participants. It was a very well organized and handled fest and they are looking forward to touch new heights in DJ-NIRMITI 2019.



### **Valedictory Function**





**ISME receiving Best student Chapter Award**

## **Industrial Visits**

### **INDUSTRIAL VISIT TO TATA MOTORS**

**Date: - 27<sup>th</sup> July, 2017**

**Place: - Tata Motors , Pimpri , Pune**

**Conducted by: -ISME (Indian Society of Manufacturing Engineers)**

**Faculty In charge: -Dr.Atul Dhale & Prof Sandip Mane.**

The Third Year students from Production department of DJSCOE were delighted to witness one of the world's most prominent industries, TATA MOTORS located at Pimpri, Pune.

First of all they were shown a presentation of the company's history and a brief explanation on their progress report. **TATA MOTORS Limited is a US \$42 Billion company which manufactures a wide range of sports cars, military vehicles, trucks and buses.**

Spread over a 1200 acres plot this industry has various departments where the vehicles are designed, manufactured, assembled and tested. The students were given a brief guide of some of these departments by the senior members of the company. They were accommodated in shuttles and shown departments such as gear box assembly unit, chassis unit, paint job unit, suspension unit, etc. One of the most intriguing departments was the assembly line where the vehicles were manufactured in different stages in a line. TATA Motors, on an average, assemble one car in 5 minutes.

The students were also shown the Test Track where the vehicles are tested for the maneuverability and stability by driving them on a series of tracks. They were also shown the company's latest model the **TATA ZEST**. The most mesmerizing fact about the plant is that it had its own separate lake having thousands of trees to compensate for the pollution caused apart from the manufacturing of cars.



**Third Year Students Posing for Photograph outside Tata Motors with Dr.Atul Dhale & Prof Sandip Mane.**

## **INDUSTRIAL VISIT to BHARAT FORGE**

Date: - 19<sup>th</sup> January, 2018

Place: - Bharat Forge, Pune

Conducted by: -ISME (Indian Society of Manufacturing Engineers)

Faculty In charge: -Prof. Meeta Gandhi & Prof. Amit Chaudhari

The Second year students of the Production department of D. J. Sanghvi College of Engineering were taken to Bharat Forge (Mundhwa, Pune) to witness the manufacturing process of forging.

Bharat Forge is world's second largest forging company. It was established in 1962 by Mr. Nilkanthrao Kalyani and is currently run by his son Mr. Baba Kalyani. It is into various sectors such as Oil and Gas, Defense equipment's, Wind energy, automobile components, construction, marine, metals and mining, rail etc. It has acquired over 9 companies all over the world.

The students were welcomed by Mrs. Leena Deshpande V.P. H.R. with a brief introduction about the history of Bharat Forge and how many sectors it is into. Then the students were made to test their knowledge by a senior employee with a short question and answer session on forging.

After this, the students were taken to see the manufacturing unit which engineers crankshafts. The Mundhwa facility of Bharat Forge is the world's largest forging facility spread across 100 acres and hence the students were shown only one of the units. This unit was fully automated and hence required minimal manual interference. The students got to see the forging and finishing of the crankshafts led by a field employee from the unit. They were explained all the different manufacturing processes in detail by the employee.

It was an overall nourishing experience for the students to see how things work in multinational companies and see the forging to give them a different perspective view of the process.



## **INDUSTRIAL VISIT to ADICO FORGE**

Date: - 19<sup>th</sup> January, 2018

Place: - Adico Forge, Pune

Conducted by: -ISME (Indian Society of Manufacturing Engineers)

Faculty In charge: -Prof. R.S.Khavekar & Prof. Meeta Gandhi

The Second year students of the Production Engineering department from the D. J. Sanghvi College of Engineering were taken to Adico Forge to witness the actual procedure of how connecting rods are made by forging. They were ecstatic to see the undergoing processes.

On reaching, they were shown a presentation on how the plant operates and were given a brief introduction about the complete process of forging connecting rods. Then they were briefed by Mr. Dhananjay Patil, the V.P. of Adico Forge (Pune) regarding the history of the company and forging process as a whole.

After that they were taken into the plant to see the forging by one of the employees. The students got to see the full process beginning from cutting of the dyes according to the shape of the connecting rod required, finishing of the dyes, cutting the raw material as per the requirement and then forging it to engineer the connecting rod, to the finishing of the connecting rod. All these processes had minimum automation and included manpower.

Lastly the students were asked to give their feedback about whatever they felt needed to be improved and whatever they liked. The students happily obliged.

Overall, it was an enriching experience for the students as it is not possible to witness such things in day to day life.



Raw materials ready to undergo forging.



## **INDUSTRIAL VISIT to HINDUSTAN AERONAUTICS LTD**

Date: - 12<sup>th</sup> February, 2018

Place: - Hindustan Aeronautics Ltd, Nashik

Conducted by: -ISME (Indian Society of Manufacturing

Engineers) Faculty In charge: -Prof. S.R.Vaity & Prof.

A.A.Samant

An industrial visit was arranged by Indian Society of Manufacturing Engineers for the First, Second and Third year students of production and mechanical department on 12<sup>th</sup> February, 2018 to Hindustan Aeronautics Limited ,Nasik.

The facility was a production line for the Sukhoi 30MKI fighter jets and also used to overhaul older Russian made jets like the Mig 21 and Mig 29.

The final assembly and the fuselage production line of the SU30 MKI was showed to the students and also the runway airside was shown. The Finance Minister of Maharashtra, Mr. Sudhir Mungantiwar had flown into the airstrip and he interacted with the teachers and students of DJSCE.

Some defence concepts were taught to the students and some of them even got to view the cockpit of the SU30MKI.

The students overall got to understand how an airplane flies and how is it made, and the future of this flourishing aeronautics industry in India. Overall it was a great experience, and a great opportunity for the students



**HAL Plant**

ISME has started its quarterly newsletter “Voice of Technology” as a platform to publish technical events , achievements & articles etc.



# Voice of Technology

**INDIAN SOCIETY OF  
MANUFACTURING  
ENGINEERS**

A QUARTERLY NEWS LETTER OF INDIAN SOCIETY OF MANUFACTURING ENGINEERS

For private circulation only
APRIL 2018 TO JUNE 2018
Issue I

## FOREWORD

### *From the Editors' Desk*

We are happy that the new Executive/Managing Committee and subcommittees are formed and activities of ISME such as publication are revived. In this issue of voice of Technology, we have published the names of members of the new committee and subcommittees (page 2), the report of ISME activities at D. J. Sanghvi College of Engineering (Page 2-3) and some information for authors and advertisers for Journal of Manufacturing Engineering and fourth coming events (page-4).

In this news letter, we would like to publish news and views related to manufacturing sector and activities of ISME and its chapters. We request Principals / HODS / coordinators of Institutional members and HR managers of corporate members to send news, views and brief reports related to manufacturing activities to publish in this news letter.

We are happy to inform that Journal of Manufacturing Engineering will be published before the end of September 2018. We welcome the research and review papers from the authors. Guidelines and deadlines for submitting papers and the rates of advertisement in the journal are given on page 4. We request all members and well wishers to contact and motivate the authors and advertisers to contribute.

- Dr. D. J. Shah  
- Prof. R. S. Khavkar

### *From the President's Desk*

**Wish you all Seasons Greetings**

I am happy to inform that the special meeting of ISME members and well-wishers was convened by Dr. D. J. Shah, Ex-President and Fellow of ISME on 27th December 2017 in consultation with me and other senior members of ISME at D. J. Sanghvi College of Engg. to revive activities of ISME and that the new managing / executive committee is formed. I am thankful to Dr. Shah for his initiatives. The five new sub-committees are also formed and they have started their activities. The names of members of committee and subcommittee are given in this issue.

In the meeting of committee & sub-committees held on 17th March 2018, it was decided to restart the publication of quarterly news letter of ISME- "Voice of Technology" and start journal of ISME- "Journal of Manufacturing Engineering". Thanks to Dr. Shah and Prof. Khavkar to bring out this April-May-June 2018 issue of Voice of Technology. I am sure that with the help of members and well-wishers of ISME, we will be able to bring out the journal at the time of AGM.

I am happy to inform that International Conference on Intelligent Manufacturing and Automation (ICIMA 2018) is planned on 20th-21st July 2018 jointly by D. J. Sanghvi College of Engg. and ISME for which springer has agreed to publish the proceedings. The AGM with half a day seminar alongwith get-together of ISME members, well-wishers alongwith their families will be held on 29th September 2018. I request all members and well wishers to take active part and make it a grand success.

- Dr. Hari Vasudevan

**EDITORS**  
**DR. D. J. SHAH**  
**PROF. R.S. KHAVEKAR**

## 2.2. Society of Automotive Engineers (SAE) Student Chapter

Number of students from Mechanical and Production Engineering inducted in this chapter is increasing every year. This being just the fourth year of the SAE chapter in the college, the organizing committee has managed to put-up numerous events which include competitions, guest lectures, workshops and value added programs.

<b>Event Title:</b>	Introduction to EPC & Energy Sector and Opportunities Available.		
<b>Date:</b>	5 <sup>th</sup> March, 2018	<b>Timings:</b>	10.30 to 12 pm
<b>Location:</b>	Seminar Hall		
<b>Speakers:</b>	Mr. Vasant Dinkar Mestry (Chairman and MD, Suvidya Institute of Technology)		

### Summary of Event:

Mr. Vasant Dinkar Mestry, the Chairman and managing director of our company. His visionary business approach as well as services support provided by experienced professionals from this industry sector allow Suvidya Institute of Technology (SIT) to successfully understand as well as deliver training solutions in the field of engineering as per the specific requirements of the customers.

Suvidya Institute of Technology (SIT), founded in 2002, is an ISO 9001:2008 Certified Organisation providing a World Class Leading Technical Training in all the engineering disciplines to meet the requirements of skilled manpower in the field of "OIL & GAS", Petrochemical & various process chemical plants.

### Context of Event:

- Introduction to the Engineering Industry
- Overview of Transformation in Industry
- Overview of Future Job Requirement
- Various Type of Industry available for working
- Various Types of Jobs available in various engineering discipline of company
- Type of skills required to grab available & future opportunities.
- How to make use of available training program to enhance skills for actual working.
- How to make use of available training program to grab global Job opportunities
- Question & Answer Sessions.

### Event Overview:

- The speaker, Mr. Vasant Dinkar Mestry arrived at 10.30 am.
- The seminar commenced at 10:45am.

- The speaker was introduced to the audience by Karan Shah ( Co-committee member, SAE student chapter of DJSCOE)
- Mr. Mestry commenced with his talk on the event topic.
- He then proceeded to an interactive question-answer session with the audience.
- The seminar ended with a vote of thanks to the speaker.
- He was presented with a bouquet of flowers and token of appreciation by the HOD.



Picture from Event

## DJS Skylark Aero Modelling Workshop

In 2017, DJS Skylark conducted their annual workshop at a scale greater than ever before. There were 200 students participating across all FE branches as well as participants from other colleges as well. They were divided into 50 teams, comprising of 4-5 students each.

Each team was given the opportunity to select one aircraft from 3 unique options, which would be built and flown at the workshop and they could take home with them at its conclusion. The three aircrafts were:

- Passenger Aircraft: A regular puller type aircraft
- Twin Boom Bomber: A pusher type aircraft with a greater wingspan and more stability
- Combat Aircraft: A lightweight and agile pusher type RC Aircraft inspired by the F-22 Raptor

The workshop was a 3 day event, the **first day** involved imparting knowledge regarding aircrafts and aerodynamics in general, as well as introducing the participants to various softwares essential for the design and analysis of an aircraft.

On the **second day**, DJS Skylark provided all participants with the required materials and tools required to build their aircraft, and guided them through the manufacturing processes. By the end of the day, their aircraft would be ready, and they would also gain significant practical knowledge about aircrafts and their manufacturing, to add to the theory they learned on the day prior.





## 2.3 Indian Society of Heating Refrigeration and Air Conditioning Engineers (ISHRAE)

This is a society aimed at advancement of the sciences of Heating, Refrigerating and Air Conditioning Engineering and related sciences. It imparts education in the fields of Air-Conditioning, Refrigeration and Allied Sciences by conducting training courses, workshops, seminars and by awarding diplomas or certificates. This student chapter was started in this academic year. Though it being a very young student chapter, has organized many events like seminars, industrial visits, technical visits and value added programs.

### ISHRAE Students Technical League (ISTL):

ISHRAE launched an event in 2017 called **ISHRAE Students Technical League (ISTL)**. In this competition, a team of students are given a detailed floor plan and the building layout of a building, along with heat load sheet. Team has to design an HVAC system according to the requirement and number of guidelines specified by the clients. There were in all 12 colleges with their respective mentors and the ISHRAE faculty participating.

**ISHRAE Student Chapter of Dwarkadas J. Sanghvi College of Engineering** were one of the participants in this League, and **Won ISHRAE Students Technical League**. In this project, team of young enthusiastic students was built by Prof. Dhaval Birajda in co-ordination with Mechanical Dept. H.O.D. Dr. K N Vijaykumar. Team was assigned a mentor Sir Vivek Marde, Director of SPACE HVAC PVT. LTD.

Team was given a site in Nagpur, a 6-storey building having basement and 4<sup>th</sup> floor as refuge area. Students were given a task to calculate the heat load and then select any HVAC system which is suitable for it. Students as a Design Engineer, designed an HVAC system of the building according of client's requirement. Studying and analysing various factors like on-site outdoor conditions, occupancy, CFM, U- Values for glass and wall, suitable latitude, etc., team selected the inside conditions of the building. On the basis of these conditions, team shortlisted the optimum HVAC system. They introduced a new methods for improving the efficiency of HVAC system implemented in residential complex.

### National Level Technical Paper Presentation:

A team of students of ISHRAE Student Chapter of Dwarkadas J. Sanghvi College of Engineering which participated in **ISHRAE Students Technical League (ISTL)**, proposed a Technical Paper on '**Methods and ways of improving efficiency of a HVAC system**'.

Team won **1<sup>st</sup> Prize at 4<sup>th</sup> National Level Technical Paper Presentation**, which had held at Universal College of Engineering, Vasai.







## **Seminar:**

**Event Title: Fast Track your Engineering Career with Project Management Skills.**

**Date & Time: 16<sup>th</sup> March, 2018, 12:00 pm.**

**Location: Production LR 3, Production Department**

**Speakers: Mr. Joji John, Professor, Synergy School of Business Skills, Andheri East (division of CADD Centre)**

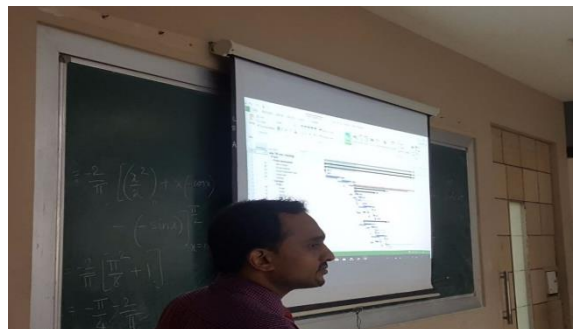
**Participants: S.E., T.E. Production and Mechanical Dept. Students.**

### **Summary of Event:**

Engineering has many facets, including but not limited to the design, analysis, manufacturing and maintenance of structures. Working in the industry is often a dangerous but worthwhile endeavour and requires a keen aptitude for project management. Seminar covered many important aspects and scope of project management in engineering domain. It also covered topics regarding software skills students need to develop.

### **Context of Event:**

The talk was delivered to audience of Second Year and Third Year Mechanical and Production Engineering students. The seminar gave students a brief knowledge regarding scope of Project Management in Engineering Domain. It gave students an insight to the impact and necessity of Project Management knowledge & skills using Oracle Primavera and Microsoft Project in current industry and how students can excel with on time and within budget delivery of projects.



**Event Title: Green Techniques to improve HVAC Industry**

**Date & Time: 26th March, 2018, 2:00 pm**

**Location: LR 42, Mechanical Department**

**Speakers: Mr. Mukesh Sehgal, Owner, Contec Airflow Projects Pvt. Ltd.**

**Participants: S.E., T.E. Mechanical and Production Dept. Students.**

**Summary of Event:**

The role of Mechanical and Production Engineers in Air conditioning and Refrigeration Industry is a crucial one as the demand for such engineering is increasing. The seminar covered the introduction regarding basic concepts of air conditioning. Main agenda covered in seminar was regarding smart and green techniques to improve HVAC system, which made an interesting and refreshing talk for the audience.

**Context of Event:**

The talk was delivered to a packed audience of Second Year and Third Year Mechanical and Production Engineering students. The seminar gave students a brief knowledge regarding the concepts of air conditioning. The seminar covered some important topics like scope of HVAC industry in India, green technology and optimization and smart use to improve HVAC system. The talk was helpful to students in preparation for their upcoming hold in Industry after placements.



## 2.4 Robotics and Automation Society (R.A.S)

R.A.S is an inter departmental society, this student chapter was one of the very recent and aimed to be largest student chapter in DJ Sanghvi College of Engineering in terms of number of students .

### DJS ROBOCON

#### DJS Robocon at ABU ROBOCON 2018



**DJS Robocon** after a successful participation at the national level ABU Robocon 2018 representing DJ Sanghvi College of Engineering set up a benchmark with an exceptional performance. The team satisfactorily completed all the fundamental challenges in the rounds of the matches setting up a pinnacle and breaking all records ever created by the institution at the competition level.



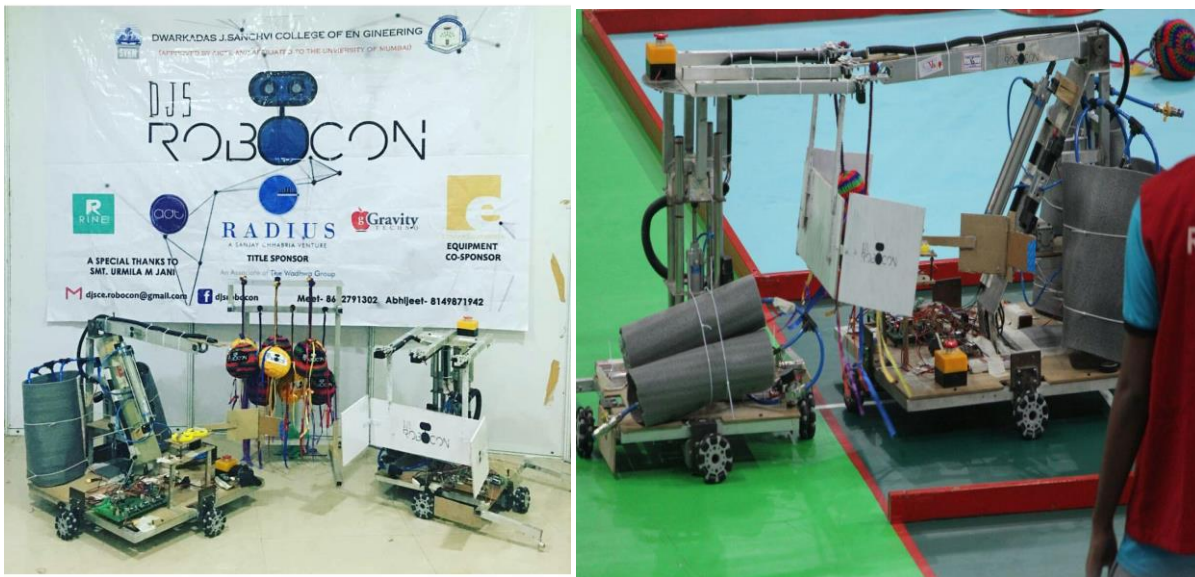
Here is an excerpt from the competition:

**ABU ROBOCON** is a competition where teams with a technical background compete to build robots & accomplish a goal within a set period of time. A problem statement is declared every year which will



provide all details of the game in an augmented reality form after which subsequently a detailed rule book and a list of FAQs are also put which the teams have to adhere to..

This year the concept and theme of **ABU ROBOCON 2018** is based on an interesting traditional folk game called “Shuttlecock throwing”. The contest theme is "**NÉM CÒN : The Festival Wishing Happiness and Prosperity**". The objective of the theme is to make a bot to traverse along a line while carrying a prop- the shuttle and pass it to another bot which will launch the shuttlecock through a ring along multiple throwing zones after which the team would score points on fruition.



The main requirements to achieve this goal was to construct two robots: a manual robot inbuilt with a calibrated line following application which would fetch the shuttlecocks from a loading zone, and an autonomous robot; which would receive the shuttlecock and launch the same along a trajectory.

ABU ROBOCON 2018 organised by Doordarshan and MIT Academy of Engineering was held in Balewadi stadium, Pune from 27<sup>th</sup> February to 3<sup>rd</sup> March 2018.



**Team DJ's Robocon** clinched the 44<sup>th</sup> spot out of a total 107 teams at the national level. Setting a pedestal with remarkable flair, the team aspires to continue the legacy forward with the same dedication and determination.

## EVENTS CONDUCTED

- **Session 1**
- The first of the 2-session introduction to Texas Instruments - introduction to TIVA microcontrollers took place on 13<sup>th</sup> of January 2018. The session was of around 5 hours which covered the basics

of microcontrollers and their peripherals. The first half of the session was dedicated to the discussion of the basic architecture, components, buses and memory along with the classification of various sections of TI's Code Composer Studio. Initialisation of an executable C-project file and defining various settings was also discussed. The second half was focussed on the Peripherals such as timers/counters and interrupts along with their types. The session concluded with concretisation of the concepts discussed in the first half and running some basic self written programs.

- **Session 2**

- The second session was conducted on Saturday January 20th 2018. This session was of 5.5 hours and was focussed on peripherals UART, I2C and ADC of the microcontroller TM4C123GH6PM of the TIVA series. First half of the session covered the RS-232 protocols along with the concept of baud rate, buffer overflow, CMOS logic, clock frequency, low power operation and sleep modes. This was supplemented with the interrupts of the peripheral and reading and transmission of data via their dedicated registers. Basic structure and the need for the I2C protocol followed immediately afterwards and topics such as pull-up resistors, distance limit, master-slave feedback, modes of operation etc. were scratched. The session concluded with the explanation, block diagram and the working of the Analog-to-Digital converters of the microcontroller and how to use them. The sessions provided a decent introduction and valuable insight to all the participants as well as non-participants of the Texas Instrument's IIDC competition on 'getting started in Programming with TIVA'!

## **DJ NSS (CONTRIBUTUION OF PRODUCTION IN NSS)**

**This year the committee had 4 students from Production dept.**



## **SOME MAJOR ACTIVITIES OF THIS ACADEMIC YEAR:**

### **NSS ANNUAL CAMP-(30<sup>TH</sup> DEC 2017 to 5<sup>TH</sup> JAN 2018)**

NSS organized its annual camp for 7 days at Narpad village, Dahanu. Students were engaged in various activities which helped in the betterment of the village. These 7 days were fully dedicated to help the society From shramdaan to road construction to awareness rally and street plays.

5 students from TE and 2 students from SE participated in the camp this year.





**STUDENTS AT NSS CAMP**

### **NEWSPAPER COLLECTION DRIVE**

Newspapers were collected from different societies in Malad and Ghatkopar and the money collected was later donated to respective NGO's.

### **BLOOD DONATION DRIVE**

The Blood Donation Drive was organized in collaboration with MGM Blood Bank and we collected 537 units of blood.





### **3. ACHIEVEMENTS**

#### **3.1 Faculty Publications / Workshop (STTP)**

##### **Publication by Dr. Hari Vasudevan**

###### ***International Conference***

1. **“Optimization of Process Parameters in Electrical Discharge Machining of DINX36CrMo17 steel using Grey Relational Analysis”**, in the proceedings of the 4th International Conference on Industrial Engineering (ICIE-2017) organised by SV National Institute of Technology, Surat from 21st to 23rd of December 2017
2. **“Shainin Tool Approach for Quality Monitoring in Injection Moulding”**, in the proceedings of the 4th International Conference on Industrial Engineering (ICIE-2017) organised by SV National Institute of Technology, Surat from 21<sup>st</sup> to 23<sup>rd</sup> December 2017

###### ***International Journal***

1. **“Application of Shainin DoE Tool to Explore Unknown Variables causing ‘Ghost Noise’ in 5th Gear Cycle of Transaxles during NVH Testing”** in “Advances in Intelligent Systems Research”, Vol. 137, PP: 271-276, Atlantis Press (Springer), AISR (ISSN 1951-6851), ISBN (online): 978-94-6252-305-0
2. **“A Comparative Study of Taguchi Methodology and Shainin System DoE in the Optimization of Injection Moulding Process Parameters”**, IOP Publishing: Conference Series: Materials Science and Engineering 225(2017) 012183

##### **Publication by Prof. Meeta Gandhi**

###### ***International Conference***

1. **“Understanding the Benefits of Green Supply Chain Management and the frame work for a generic approach in measuring the organizational programme”**, in the proceedings of the 4th International Conference on Industrial Engineering (ICIE-2017) organised by SVNIT, Surat from 21<sup>st</sup> to 23<sup>rd</sup> of December 2017.

##### **Publication by Prof. Sandip. H. Mane**

###### ***International Conference***

1. **“Cutting Fluids and Cutting Fluid Application Techniques in Machining: A Review.”** in Int. Con. and Workshop on Advances in Mechanical Design, Manufacturing and Thermal Engineering. (ICWAME 2018) Organized by Thakur College of Engineering and Technology Kandivali, Mumbai, during Feb. 23 – 24 Feb., 2018

### 3.2 Students Extra-Curricular Activities (17-18)

SE			
Sr. No.	SAP ID	Name	Achievemen
1.	60012160004	KANISHK BRAHMBHATT	CO-CAPTAIN IN COLLEGE FEST, OWN AN EVENT COMPANY IN MUMBAI(OTM),STATE LEVEL THROWBALL PLAYER, DISTRICT LEVEL DANCE & ARTS WINNER, ISME Co- Committee member.
2.	60012160035	Nishi Negandhi	ISME Co-Committee Member, E-Cell Co-Committee Member
3.	60012160008	KSHAMITA DESAI	NSS Co-Committee member, ISHRAE Co-Committee member
4.	60012160007	VARSHIL DAYANI	ISHRAE Co-Committee member
5.	60012160023	KRISHNAN KAUHSIK	ISME Co-Committee member, NSS Co-Committee member.
6.	60012160005	AMAN CHHEDA	TECHNICAL HEAD AND VICE CAPTAIN OF TEAM DJS KARTING INDIA RAS Co-Committee member. PRESENTED TECHINCAL PAPER IN TRINITY.
7.	60012160017	Bhavik Jain	Marketing Executive at DJS Helios and PR head at DJS Helios
8.	60012160015	SHRAMIK HARSORA	Marketing Executive at DJS KARTING
9.	60012160060	NISHANT VARTAK	TEAM member at DJS KARTING

10.	60012160027	MOHIT MEHER	CO-COMMITTEE MEMBER OF ISME
11.	60012160001	AGARWAL SOHAM RAJESH	MEMBER OF ENGINE DEPARTMENT DJS KARTING PRESENTED TECHINCAL PAPER IN TRINITY
12.	60012160061	VITHALANI RAHUL JEETENDRA	MEMBER OF SUSPENSION,STEERING,BRAKES IN TEAM DJS HELIOS
13.	60012160028	MESTRY MANISH SONU	MEMBER OF STEERING DEPARTMENT IN TEAM DJS KARTING
14.	60012160019	NIRAV JAIN	Co-committee member of ISME
15.	60012160022	DEVANG KANTHARIA	Active member in DJS Racing Co- Committee Member of ISHRAE student chapter of D. J. Sanghvi College of Engineering
16.	60012160059	VAISHNAVI UGLE	Co-committee member of ISME
17.	60012160041	VISHAL PARIKH	ACTIVE MEMBER OF NSS UNIT CO COMMITTEE MEMBER OF E CELL CO COMMITTEE MEMBER OF ISME student chapter of D.J.Sanghvi College Of Engineering

18.	60012160050	ARYA SEJPAL	<p>DJS Kronos India 2017-18:</p> <ul style="list-style-type: none"> <li>- Member of marketing department</li> <li>- 2<sup>nd</sup> in Business Plan Presentation at ESI 2018</li> <li>- 1<sup>st</sup> in Maneuverability Event at BAJA SAE 2018</li> <li>- 2<sup>nd</sup> in Maneuverability Event at ESI 2018</li> <li>- 10<sup>th</sup> Overall at ESI 2018</li> </ul> <p>DJS Kronos India 2018-19:</p> <ul style="list-style-type: none"> <li>- Marketing Head</li> <li>- Overall 3<sup>rd</sup> in Mumbai at Virtual BAJA 2018</li> </ul> <p>Member of ISME Co-Committee 2017-18</p>
19.	60012160014	ABHISHEK GUPTA	<p>DJS Kronos India 2018-19:</p> <ul style="list-style-type: none"> <li>- Member of Suspension and Steering department</li> <li>- Overall 3<sup>rd</sup> in Mumbai at Virtual BAJA 2018</li> </ul>
20.	60012160021	VAIDEHI KANNAWAR	<p>Member of SAE co-committee</p> <p>Active member of DJS Racing Electric</p> <p>7<sup>th</sup> place in BPP in formula student east (DJS Thunderbolt-CHASSIS)</p>

## NPTEL LOCAL CHAPTER

NPTEL (National Programme on Technology Enhanced Learning) was started to build on the engineering and core science courses. To take this initiative forward and to encourage more students across colleges to participate in this initiative, NPTEL chapter was set up in our college. In its 1st year only we managed to secure 21st rank in Top 100 colleges from all over India. Following are result of production engineering students in various Nptel exams.

### March 2017 Result

Name	NOC Course Name	Score From Assignment	Exam Score	Final Score
Prof. Avadhut Samant	Outcome Based Pedagogic Principles for Effective Teaching	94	76	81
Varad Satam	Modelling and Simulation of Dynamic Systems	93	89	90
Aum Pandya	Modelling and Simulation of Dynamic Systems	88	75	78

### March 2018 Result

Name	NOC Course Name	Score From Assignment	Exam Score	Final Score
AVADHUT ANANT SAMANT	Operations Management	25	61.5	87
HET SANJAY VISARIA	Theory of Production Processes	23.25	31.5	55
RONIT KALPESH SHAH	Theory of Production Processes	20	36.75	57
HET SANJAY VISARIA	Project Management	21.25	51	72
UMANG DEEPAK LAKHANI	Six Sigma	12.25	22.5	35

## NPTEL RESULT ANALYSIS

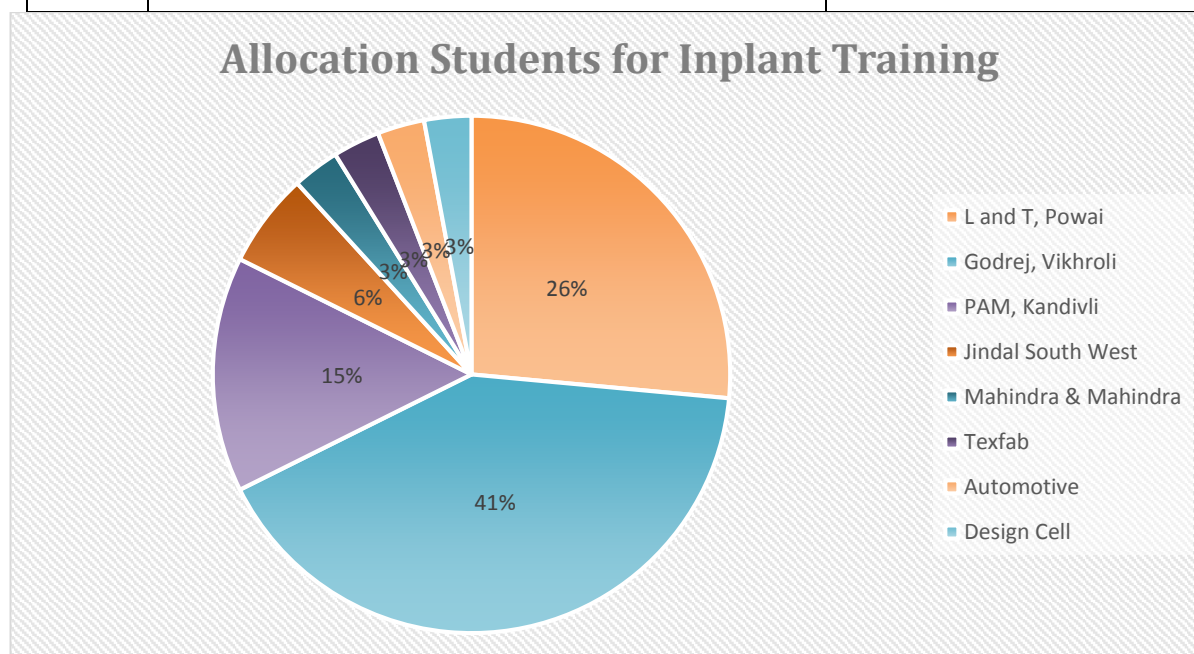
GRADING SYSTEM	Sep-17	Oct-17	Mar-17	Total
Score < 40%: NO certificate	-	2	-	2
Score between 40% -59%: Certificate "Successfully completing the course":	-	1	-	1
Score between 60% -89%: Certificate "Elite" :	1	2	2	5

### 3.3 Industrial Training and Project

**Initiatives Related to Industry Interaction** -To help students in correlating the lessons learnt in theory and actual practices followed in the Industries and to get tuned to work under the atmosphere of factory discipline students are sent to various companies for doing Industrial Training and Project. These Projects are assigned by respective companies.

Following is the list of companies in which students were enrolled for In-plant training for academic year 2017-18:

Sr. No.	Companies	No. of Students allocated for Project
1.	L and T, Powai	09
2.	Godrej, Vikhroli	14
3.	PAM, Kandivli	05
4.	Jindal South West	02
5.	Mahindra & Mahindra	01
6.	Texfab	01
7.	Automotive	01
8.	Design Cell	01



#### 4. Placement & Higher Studies

- Eleven students were placed
- Following is the placement data for the year17-18:

**Branch: Production 17-18**

**Average Salary Package offered: 4.11 lacs**

**Maximum Salary Package offered: 5.5 lacs**

Students Placed 2017 - 2018	
Name Of Student	Placed In
Dushyant Panchal	Ernst & Young
Saurabh Thanawala	Ernst & Young
Rahulkumar Detroja	Ernst & Young
Harsh Kothari	Godrej & Boyce Mfg. Ltd.
Mayank Nahar	Godrej & Boyce Mfg. Ltd.
Kartik Khanderia	Godrej & Boyce Mfg. Ltd.
Yash Patel	Gandhi Automation
Premal Panchal	ICICI Prudential
Aditya Swami	ICICI Prudential
Himanshu Desai	ICICI Prudential
Krupesh Patel	Marwadi Shares



**LIST OF STUDENTS WHO HAVE  
RECEIVED ADMITS FROM  
UNIVERSITIES FOR MS COURSE AS ON July 2018**

Name	GRE Score	University admit offered at
Aayush Sharda	99.93%	Jamnalal Bajaj Institute of Managament Studies
Steve Paul	311	IOWA State University, Clemson University, SUNY Buffalo
Kanhai Dalal	315	Duke University, New York Univeristy, University of Illinois at Urbana–Champaign
Smitkumar Kaneria	318	North Carolina State University, V. Tech, Lehigh University IOWA State University
Rohan Kini	303	SUNY Buffalo, UT Arlington, University of Alabama
Aditya Matkar	-	University of Groningen
Shubham Nage	318	North Carolina State University
Kshitij Sankesara	314	Syracuse University, Northeastern University, Michigan Technological University, University of Albany
Pakshal Shah	-	University of Technology Sydney
Zeel Shah	314	Worcester Polytechnic Institute, University of Texax Arlington

## **5. Result of B.E.Production**

### **List of Toppers A.Y.17-18**

<b>Sr.No.</b>	<b>Name</b>	<b>SGPI</b>
<b>1.</b>	<b>Harsh Vijaykumar Kothari</b>	<b>8.85</b>
<b>2.</b>	<b>Steve Paul</b>	<b>8.72</b>
<b>3.</b>	<b>Shubham Nage</b>	<b>8.70</b>
<b>4.</b>	<b>Sohum Shailesh Parekh</b>	<b>8.60</b>
<b>5.</b>	<b>Krupesh Manishkumar Patel</b>	<b>8.60</b>
<b>6.</b>	<b>Pakshal Shah</b>	<b>8.57</b>
<b>7.</b>	<b>Soham Joshi</b>	<b>8.55</b>
<b>8.</b>	<b>Smitkumar.S.Kaneria</b>	<b>8.55</b>
<b>9.</b>	<b>Panchal Dushyant</b>	<b>8.51</b>
<b>10.</b>	<b>Rahulkumar.D.Detroja</b>	<b>8.47</b>

## 6. Staff

### 6.1 Teaching Staff

Sr.No.	Name	Post
1.	Dr. Hari Vasudevan	Professor and Head of the Dept. of Production Engg.
2.	Prof. E. Narayanan	Mentor Professor (Adhoc)
3.	Dr. Atul Dhale	Associate Professor
4.	Prof.R.S.Khavekar	Associate Professor
5.	Prof. Naresh C. Deshpande	Assistant Professor (Associate Head)
6.	Dr. Sanjay Thool	Assistant Professor
7.	Prof. Sandeep R. Vaity	Assistant Professor
8.	Prof.(Mrs.) Meeta N. Gandhi	Assistant Professor
9.	Prof. Avadhut A. Samant	Assistant Professor
10.	Prof. Sandip H. Mane	Assistant Professor
11.	Prof. Mehul S. Prajapati	Assistant Professor
12.	Prof.(Mrs.) Trupti Markose	Assistant Professor
13.	Prof. Amit A. Chaudhari	Assistant Professor
14.	Prof. Sanket D. Parab	Assistant Professor

### 6.2 Non-Teaching

Sr.No.	Name	Post
1.	Sushant S. Vanne	Lab. Assistant
2.	Pradeep Pawar	Lab. Assistant (Adhoc)
3.	Dattatray Kadam	Lab. Attendant
4.	Suresh Darde	Lab. Attendant
5.	Mr. Sanjay Shimpi	Workshop Instructor
6.	Mr.Pravin Sawant	Workshop Instructor
7.	Mr.Ganesh Wadke	Workshop Instructor
8.	Mr.Mangesh Devrukar	Workshop Instructor
9.	Mr. Vijay Chavan	Workshop Instructor
10.	Mr.Deeoak Telewane	Workshop Instructor
11.	Mr.Ashok Waghela	Workshop Supporting Staff

### 6.3 Visiting Faculty

Sr.No.	Name	Designation
1.	Prof. Sreejit V.Pillai	Financial Advisor, Citi Group of Companies.
2.	Prof.G.G.Patwardhan	Former Lecturer in Bhagubhai
3.	Prof.K.P.Chandramohan	Sales Manager,Lacoste ,India
4.	Dr. Vidya Naik	Former Professor in NMIMS

#### 6.4 Departmental Responsibilities

Following is the allocation of the extra departmental responsibility for the academic year 2017-2018.

<b>Sr. No.</b>	<b>Areas of Work</b>	<b>Coordinator</b>
1	Overall administrative coordination	SRV
2	Industrial Training and Interactions	TM
3	Workshop	SHM
4	Class In-charge SE	MSP
5	TE	AAC
6	BE	TM
7	Lab In-charge	Respective faculty
8	Examinations	SHM
9	Departmental Library	NCD
10	Attendance Monitoring	Class In-charge
11	Faculty Monthly Report	MNG
12	Daily Report	SBT
13	Coordination With Placement	MSP
14	Time-Table/Teaching Load	MNG
15	Stock Taking and Infrastructure Maintenance	AAS
16	Continuous NBA monitoring & coordination	ADD
17	Alumni association activity coordination	AAC
18	Visiting faculty coordination	SHM
19	Academic Bulletin	SDP
20	Web site updating	AAC
21	ISME & RAS Coordination	SDP
22	SAE & ISHRAE	MNG
23	VAP Coordination	AAC



# HIGHLIGHTS

- Production Department has got NBA accreditation for 3 years (2<sup>nd</sup> Time).
- 11 students got placed & 10 got students got admission for higher studies.
- Aayush Sarda of B.E. Production got admission in Jamnalal Bajaj Institute of Management Studies.
- ISME got BEST DJSCE CHAPTER AWARD.
- Varad Satam of BE-Production was topper in NPTEL course “Modelling and Simulation of the Dynamic Systems” which was conducted by IIT Rourkee. He was given Elite+gold medal certificate, also Aum Pandya of BE-Production scored 78% in same course.
- Het Visaria of TE-Production scored 72% in NPTEL course “Project Management” which was conducted by IIT Rourkee.