



PVPSIT

Mechanical Engineering Department

NEWS LETTER

January - June 2018

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The Department of Mechanical Engineering has been in existence ever since the college started in year 1998. Department is affiliated to JNTU since 1998. B. Tech. Program is accredited by NBA-AICTE in May 2007 for 3 years and provisionally accredited for 2 years in June 2012 and is certified by ISO 9001:2015 certification. Once again it is provisionally accredited for 3 years under OBE in the year 2016.

Numerous research papers have been published in National and International Journals and Conferences. The Department arranges guest lectures by eminent professors from India and abroad, scientists from research organizations and experts from industry to bridge the gap between academics and industry. Faculty members are encouraged to improve their academic qualification and to gain experience by attending FDPs, workshops, conferences etc. They are also encouraged to present research papers at workshops and conferences, and to participate in co-curricular and extracurricular activities.

The Department promotes active industry-institute collaboration by organizing workshops and by taking part in sponsored research projects and consultancy services. Visits to the industries for faculty and students are frequently arranged to enhance the practical exposure with the real corporate world. Department also organizes programmes like Alumni interaction sessions with current students and make them familiar with specific market requirements and demands.

Contents

- ◆ Guest Lectures / Workshops Organized
- ◆ Faculty Achievements
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DEPARTMENT OF MECHANICAL ENGINEERING

NEWS LETTER data from January to June, 2018

1. Workshops/Seminars/Guest Lectures/Training Programs/Symposiums organized:

- i. A Guest Lecture on “**Nano Composites**” by Dr. Nagumothu Kishore Babu, Empa, Swiss Federal Laboratories for Materials Science and Technology, Feuerwerkerstrasse, Thun, Switzerland; on 07.02.2018 at 10.30 a.m in the ground floor seminar hall for IV B. Tech Mechanical Engineering students and staff.

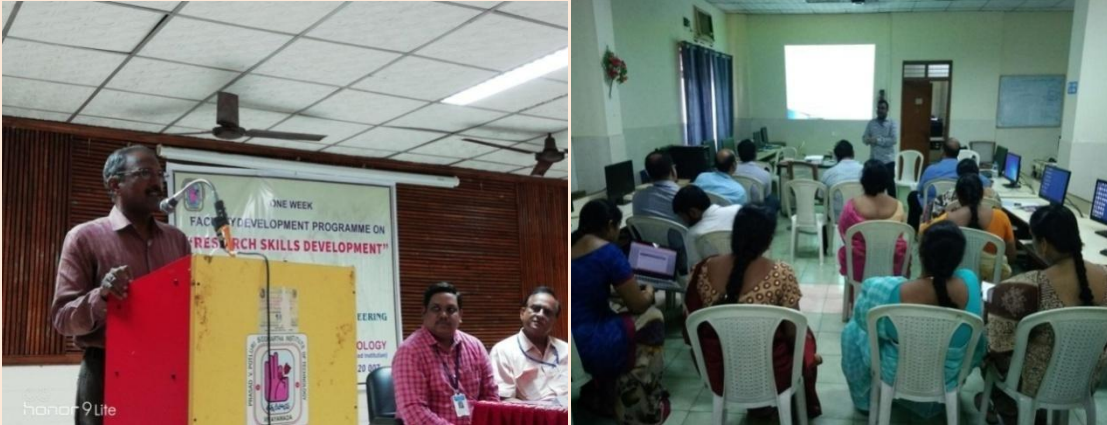


- ii. A One-week certification course on “Non Destructive Testing” at P.V.P.Siddhartha Institute of Technology from 12th – 17th Feb, 2018.



- iii. A Two-day training Programme on “PLC With Universal Simulator ANS Sensor KIT” for teaching staff by Mr. Tavre Milind, Training Engineer, BK Auto centre, Bangalore from 05.04.2018 to 06.04.2018 at Mechatronics Lab, PVPSIT.

- iv. A One-week FDP on “Research Skills Development” from 09.04.2018 to 13.04.2018 for which the resource persons were Dr. G. Srinivasa Rao, Professor, Mechanical Engg. Dept., RVR & JC, Guntur., Sri. B. Narasimha Swamy, Sr. Assistant Professor, CSE Dept., PVPSIT, Vijayawada., Dr. Korla Srikanth, Associate Professor, Mechanical Engg. Dept., NIT, Warangal.



- v. A Two-day Training Programme on “Sensor KIT” for the faculty by Mr. Tavre Milind, Training Engineer, BK Auto centre, Bangalore, from 18.04.2018 to 19.04.2018 at Mechatronics Lab, PVPSIT.
- vi. A Two-day Workshop on “Electric Discharge Machining (EDM)” for non-teaching staff by Mr. N. Raghuram, Assistant Professor, Sri. D. Uma Maheswara Rao, Jr. Mechanic on 23.04.2018 and 24.04.2018 at CAD Lab, PVPSIT.



- vii. A Guest Lecture on “Power Plant Engineering” by Sri. Rayavarapu Samuel Johnson, Assistant Divisional Engineer-Mechanical, Training Institute, APGENCO, Ibrahimpatnam, Krishna District, A.P. for III B. Tech students and the Staff of Mechanical Engineering Department on 22.06.2018.



2. Workshops/Seminars/Conferences/Faculty Development Programs attended by the faculty:

- i. Mr. Sri RamVikas attended an International Conference at Viswa Veda Vigyan Sammelan at Deccan college, Pune. From January 10th to 13th ,2018.
- ii. K.Venkat Rao participated in an AICTE sponsored short-term course “Introduction to Hydrodynamic Stability” at IIT Madras from 26th –31st March,2018.
- iii. M. Rajya Lakshmi, M.Radha Devi, Ch.Vidya have participated in a Five day Continuing Education Program on “Innovative Methods for Teaching Mechanical Engineering (IMTME 2018)” at NIT,Warangal from 22nd – 26th April,2018.
- iv. Dr.K.Srividya , T.Srinag, G.Bala Krishna, KIV.Vandana has participated in a course on “Electron Microscopy” under the Quality Improvement program of AICTE, New Delhi at IISC Bengaluru from 14th – 18th May,2018.
- v. Dr.K.Srividya, P.Anusha, M.Naga Swapna Sri have attended the AICTE-ISTE sponsored One week Refresher Course in “Computational Fluid Dynamics” at Gudlavalleru Engineering College from 18th – 23rd June,2018.
- vi. Mr. Sriram Vikas Attended National conference on Frontiers in Corrosion control in Materials at NIT Warangal, presented a paper in that conference entitled, “Influence of Post Weld Heat Treatment on Microstructure and Pitting Corrosion Behaviour of Dissimilar Aluminium Alloy Friction Stir Welds” on 27th and 28th June, 2018.

3. Publications by the faculty (National/International Journals/ Conferences):

International Journals

Scopus indexed:

- i. AVS Ram Prasad, Koona Ramji, B Raghu Kumar, published a paper on "Study of wire-electrical discharge machining parameters of titanium alloy by using taguchi

method" International Journal of Engineering & Technology, 7 (2.8) (2018) 10-12 ,ISSN: ISSN: 2227-524X

- ii. Dr. B. Raghu Kumar published a paper on "Investigation Of Flexural And Impact Strength Of Carbon Nanotube Reinforced Aa7075 Metal Matrix" in International Journal of Engineering & Technology (IJET), (Scopus Indexed), Vol. 7 (2), 2018, doi: 10.14419/ijet.v7i2.11295. ISSN: 222, 7-524X. p. 764 – 767.
- iii. Dr. B. Raghu Kumar published a paper on "Experimental Investigation Of Thermal Stability Of Carbon Nanotubes Reinforced Aluminum Matrix Using Tga – Dsc Analysis" in International Journal of Mechanical and Production Engineering Research and Development (IJMPERD), (Scopus Indexed), Vol, 8, Issue 3, June, 2018, ISSN(P): 2249–6890, ISSN(E): 2249–8001, p. 161 – 168.
- iv. Dr. K. Srividya, M. Nagaswapnasri, Ch. Mohan Sumanth, Ch. Jeevan Paul published a paper on "Prediction of Natural Frequencies of Thin Metal Plates" in International Journal for Research in Engineering Application & Management, ISSN: 2454-9150, 2018.

Non - Scopus indexed:

- i. Phani Prasanthi , G. Sambasiva Rao, published a paper "Analysis of Nano and Hybrid Composites with Voids Using Micromechanics" American Journal of Engineering Research (AJER), e-ISSN: 2320-0847 Volume-7, Issue-3, pp-268-278, March, 2018
- ii. K. I. Vishnu Vandana, M. Rajyalakshmi, N.S.P Sruthi, S. Sai Prazwal published a paper on "Using Plastic Waste in Road Construction- A Survey" in International Journal of Creative Research Thoughts, Volume 6, Issue 2. April, 2018 ISSN: 2320-2882.
- iii. K. I. Vishnu Vandana, N. S. P. Sruthi, S. N. V. S. Srivatsava, S. Sai Prazwal, U. Ravi Teja published a paper on "Fabrication and Testing of Eco-Friendly Silencer" in International Journal of Innovative Research in Science, Engineering and Technology Vol. 7, Issue 4, April 2018 ISSN(Online): 2319-8753.
- iv. M. Rajya Lakshmi, B. Kranthi Kumar, A. Krishna Vaibhav, Md Arief Khan published a paper on "Design and Fabrication of Intelligent Mechatronic Braking System" in International Journal of Science Technology & Engineering Volume 4. Issue 10. April, 2018. ISSN (online): 2349-784X.
- v. P. Anusha published a paper on "Thermo Acoustic Refrigeration - A Review" in International Journal for Research in Engineering Application & Management, 2018, ISSN: 2454- 91.
- vi. R. Kiran Kumar, P. Ravi Kumar, Sd. Abdul Kalam, published a paper on "Flap-Wise Vibration Analysis Of A Rotating Composite Beam With Tip Mass" in Journal of Emerging Technologies and Innovative Research, June 2018, Volume 5, Issue. 6 (ISSN- 2349-5162).

International Conferences

- i. M. Naga Swapna Sri presented a paper on "Mechanical Behavior of Al-Si/Copper Particulate Reinforced Composite Metallic Material", International Conference on Advances in Materials and Manufacturing Engineering, 22nd to 24th January, 2018 at Acharya Nagarjuna University.
- ii. K.Sri Ram Vikas, P.Gopala Krishnaiah participated and presented a Technical Paper on “ Sintering and Property Evaluation of Tungsten Graphene added Copper Based Composites” at PM 18 International Conference on Powder Metallurgy & Particulate Materials at Navi Mumbai from 21st – 23rd February, 2018.
- iii. Mr. Sriram Vikas Attended National conference on Frontiers in Corrosion control in Materials at NIT Warangal, and presented a paper entitled, “Influence of Post Weld Heat Treatment on Microstructure and Pitting Corrosion Behaviour of Dissimilar Aluminium Alloy Friction Stir Welds” on 27th and 28th June, 2018.

National Conference:

- i. P.Anusha, Dr N V V S Sudheer presented a paper on "Experimental Determination Of Effect Of Gas An Liquid Pipeline Insulation On Cop While Using R22 And R410a In An Sac System" in the 5th National Conference on Refrigeration and Air Conditioning (NCRAC2018) at National Institute of Technology, Karnataka from 24th to 26th May, 2018.

4. Faculty Achievements (Higher Qualification awarded, guest lectures given, awards and rewards, acted as a Judge or Resource person etc.):

- i. Under the guidance of Dr. B. Raghu Kumar, one scholar has been awarded PhD, from JNTU, Kakinada, March, 2018.
- ii. Dr. B.Raghu Kumar delivered a Guest lecture on “Design of machine elements-Emphasis on recent applications and practical design scenarios” at Adithya Engineering College on 01st March, 2018.
- iii. Dr.B.Raghu Kumar delivered a lecture on New Proforma of NAAC at Sri Durga Malleswara Siddhartha Mahila Kalasala, Vijayawada on 1st June, 2018.
- iv. Five faculty members secured certificate in NPTEL Certifications during Jan- April, 2018.

5. Faculty Participation (as a Judge, Guest, or BOS member, Chairing a session, etc.):

- i. Dr. B.Raghu Kumar chaired a parallel session in the International Multidisciplinary Conference on “ Knowledge sharing, Technological Advancements and sustainable development” (IMC2k18) organized by Freshman Engineering Department at PVPSIT on 30th and 31st March, 2018.

6. Industrial Visits:

S.No	Year of Study	Name of the Industry Visited	Date of visit
1	III (Section-1) B.Tech I semester	KCP SUGAR INDUSTRY	30-1-2018
2	III (Section-2) B.Tech I semester	KCP SUGAR INDUSTRY	29-1-2018

7. Students selected for GATE/IELTS/GRE/TOEFL and other competitive Examinations:

- i. GATE Qualified – 04 Students
14501A0362, 14501A0374, 14501A0397 and 14501A0337
- ii. **MS:**
G.V.Nagendra Babu - 14501A0343 Advance Manufacturing Technology - Swinburne University of Tech., Melbourne (IELTS Score = 6.5)
- iii. **M. Tech:**
D.Akhil Babu - 13501A0327 -Foundry Forge Technology - NIFFT, Ranchi.
(GATE Score= 515; Marks out of 100 = 50.35)
- iv. **Qualified in VIT - MEE:**
Ch.K.M.Kumar 14501A0325, Ch. Mounika - 14501A0327

8. MOUs Signed:

1. Kusalava International Ltd, Adavinekkalam, Vijayawada, June, 2018.

9. Students' achievements:

a) Literary and Cultural Activities/Academic awards:

- i. P. Sai Phani Ram of III B. Tech. participated in the Explorers Meet-2K18, and presented a paper on “Continuous Liquid Interface Production” and secured the 1st place at S.R.K. Institute of Technology from 3rd – 4th January, 2018.
- ii. T. Venkata Sai Kartheek of III B. Tech. participated in the Explorers Meet-2K18, in the event Technical Quiz and secured the 1st prize at S.R.K. Institute of Technology on 3rd and 4th January, 2018.
- iii. P.Sai Phani Ram of III B. Tech. participated in the National Level Technical Meet, MechMantra and presented a paper on “Continuous Liquid Interface Production” and won the 1st prize at R.V.R. & J.C. College of Engineering, Guntur on 5th January, 2018.
- iv. V.Bala Satya Nagesh, N.Vishnu Vardhan of III B. Tech. participated in the event Technical paper presentation and presented a paper on “Self Balancing Technology in Two Wheelers” at SITAR-2k18 and won the 1st prize at P. V. P. Siddhartha Institute of Technology, Kanuru, Vijayawada on 09th February, 2018.

- v. P.Sai Phani Ram of III B. Tech. participated in the event Technical paper presentation and presented a paper on “ Continuous Liquid Interface Production” at SITAR-2k18 and won the 2nd prize at PVP Siddhartha Institute of Technology, Kanuru, Vijayawada on 09th February, 2018.
- vi. N. Venkateswara Rao, A. Abhilash, M. Ram Prasad participated in the event Technical Quiz at SITAR-2k18 and won the 2nd prize at PVP Siddhartha Institute of Technology, Kanuru, Vijayawada on 09th February, 2018.
- vii. Anub.Thomas, K.Venkata Krishna of III B. Tech. participated in the event CAD Contest at SITAR-2k18 and won the 3rd prize at PVP Siddhartha Institute of Technology, Kanuru, Vijayawada on 09th February, 2018.
- viii. M. Deepak Anand of III B.Tech. participated in the Event Technical Jam at AFOSEC a National Level Techno-Cultural Fest and won the 2nd Prize at V.R.Siddhartha Engineering College Vijayawada on 15th and 16th February, 2018.
- ix. NPTEL Certifications Report:
Ten students secured certificate during Jan-Apr. 2018 among them 6 students got Elite certificate.

b) Presentation/Participation in Seminars/Conferences/Workshops:

- i. Sk.Hussain of III Year has participated in the Explorers Meet-2K18, and presented a paper on “Cryogenic Fuels” at S.R.K. Institute of Technology on 3rd and 4th January, 2018.
- ii. T.Venkata Sai Kartheek of III B.Tech. participated in the National Level Technical Meet, MechMantra and presented a paper on “Dual Clutch Transmission” at R.V.R. & J.C. College of Engineering, Guntur on 5th January, 2018.
- iii. Sk.Hussain, S.Prudhvi Teja, Y.N.V.Guru Pavan, P.V.Rama Kiran of III B.Tech. participated in the event General Quiz at the National Level Technical Meet, MechMantra at R.V.R. & J.C. College of Engineering, Guntur on 5th January, 2018.
- iv. P.Raja Sekhar,N.Sai Poorna Sruthi of IV B.Tech. participated in the Quarter Final (South Zone) aQuest Quiz Competition by ISHRAE Chennai Chapter at St. Joseph’s Insitute of Technology Chennai on 6th January, 2018.
- v. G.Venkata Nagarjuna, G.Anith of II B.Tech. participated in the event Technical paper presentation and presented a paper on “ Super Charges & Turbo Chargers” at SITAR-2k18 at P. V. P. Siddhartha Institute of Technology, Kanuru, Vijayawada on 09th February, 2018.
- vi. Ch.Bhanu Akhil, G.Jagadeesh of II B.Tech. participated in the event Technical paper presentation and presented a paper on “Indian Missiles” at SITAR-2k18 at P. V. P. Siddhartha Institute of Technology, Kanuru, Vijayawada on 09th February, 2018.

- vii. A.Abhilash of III Year has participated in the event Technical paper presentation and presented a paper on “Accident Detecting System” at SITAR-2k18 at P. V. P. Siddhartha Institute of Technology, Kanuru, Vijayawada on 09th February, 2018.
- viii. K.Prasanth Babu, K.Vijay Babu of III B.Tech. participated in the event Technical paper presentation and presented a paper on “5-Axis CNC” at SITAR-2k18 at P. V. P. Siddhartha Institute of Technology, Kanuru, Vijayawada on 09th February, 2018.
- ix. GBNS.Ahshay Kumar, Anub Babu,K.Venkata Krishna, K.Samadhanam, B.Kiran, K.Vijaya Babu, K.Prasanth Babu, K.Sai Kumar, B.Ram Babu of III Year have participated in the event Technical Quiz at SITAR-2k18 at PVP. Siddhartha Institute of Technology, Kanuru, Vijayawada on 09th February, 2018.
- x. P.Bharani Preetham, G.Jagadeesh, Ch.Bhanu Akhil, A.Narendra, A.Manoj Kumar, Sk.Nagoor Sharif of II Year have participated in the event Technical Quiz at SITAR-2k18 at P. V. P. Siddhartha Institute of Technology, Kanuru, Vijayawada on 09th Feb, 2018.
- xi. GBNS.Ahshay Kumar,V.Bala Satya Nagesh, N.Vishnu Vardhan, A. Abhilash, I.Ravi Teja of III Year have participated in the event CAD Contest at SITAR-2k18 at P. V. P. Siddhartha Institute of Technology, Kanuru, Vijayawada on 09th Feb, 2018.
- xii. Ch.Bhanu Akhil, M.Dilip, R.Dyaneeswar, V.Sreemannarayana Murthy,R.V.Chaitanya Reddy, Sk.Nagoor Sharif of II Year have participated in the event CAD Contest at SITAR-2k18 at P. V. P. Siddhartha Institute of Technology, Kanuru, Vijayawada on 09th Feb, 2018.
- xiii. Sk. Mahaboob Basha, V.Balasya Nagesh of II B. Tech. participated in the event Project Expo and presented a model on “Power generation by Speed breaker” at SITAR-2k18 at PVP Siddhartha Institute of Technology, Kanuru, Vijayawada on 09th February, 2018.
- xiv. Sk.Nagoor Sharif, T.M.N.Chakravarthy, P. Sairam of III B. Tech. have participated in the event Project Expo and presented a model on “Cooling Suit” at SITAR-2k18 at P. V. P. Siddhartha Institute of Technology, Kanuru, Vijayawada on 09th February, 2018.
- xv. R. Saikumar, R.V.Chaitanya Reddy, T.Phani kumar of III B. Tech. participated in Project Expo and presented a model on “Dual usage of crank-lever mechanism” at SITAR-2k18 at PVP Siddhartha Institute of Technology, Kanuru, Vijayawada on 09th February, 2018.
- xvi. R.Dyaneeswar, V.Yamini, N.Harshini of II B. Tech. participated in Project Expo and presented a model on “Radioactive heat transfer” at SITAR-2k18 at P. V. P. Siddhartha Institute of Technology, Kanuru, Vijayawada on 09th February, 2018.
- xvii. M.Suraj, B.Anitha, A.V.Rami Reddy,V.Kumareshan,T.Venkata Sai Kartheek,P.V.Rama Kiran, T.B.R.Krishna Vamsi Chowdary, Y.Satya Narayana, N.VishnuVardhan, V.Sai Geethika, A. Chandra Deep, D.Vasista Sai, M.Sriram Charan, Sk.Ayub, V.Bala Satya Nagesh, S.Ravi Teja, P.Sairam, K.Venkata Sandeep, Sk.Mahaboob Basha, R.Sandeep Kumar, P.Ravi, P.Jashwanth Varma, M.Naga Lakshmi, Sk.Srinu, Md.Alithaf, S.Prudhvi Teja, M.Sai Mouli, P.Sai Phani Ram, A.Sai Chandu, Sk. Hussain of III B.Tech. participated

in a one-week certification course on “Non Destructive Testing” at PVP Siddhartha Institute of Technology from 12th – 17th February, 2018.

- xviii. M.Ram Prasad, M.Ram Mohan, K.Krishna, B.Vikunta Rao, Bala Ram Naik, B.Jagath Kumar of III B.Tech participated in the Event Technical Quiz at AFOSEC a National Level Techno-Cultural Fest at V.R.Siddhartha Engineering College Vijayawada on 15th and 16th February, 2018.
- xix. M.Ram Prasad, M.Padmakar, M.Ram Mohan, Bala Ram Naik, of III B.Tech participated in the Event Auto CAD at AFOSEC, A National Level Techno-Cultural Fest at V.R.Siddhartha Engineering College Vijayawada on 15th and 16th February, 2018.
- xx. M.Padmakar, K.Krishna, B.Vikunta Rao, Prudhvi Gowtham of III B.Tech participated in the Event Junkyard Wars at AFOSEC, a National Level Techno-Cultural Fest at V.R.Siddhartha Engineering College Vijayawada on 15th and 16th February, 2018.
- xxi. L.Venkata Teja, A.Sai Chandu, h.Yona Kumar, M.Ram Mohan, M.Bala Ram Naik, K.Sravani, J.Chandini, D.Vani,K.Sri Durga Rushendra Kumar, K. Dwaraka Srinivas, K.Dushyanth, K.Venkata Sandeep, K.Phaneendra, K.Bala Gangadhar, K.Purandhara Chakravarthy, K.Siva Gopi, V.Jaswanth, J.Dileep, G.Damodhar Reddy, Ch. Teja Tarun, SaiCh.Prudhvi Gautam, B.Ram Babu, A.Abhilash, A.Sudheer, A.Naga Surya Vamsi, A.Lakshmana Rao, A.Syam Adarsh of III B.Tech have visited Bench Mark Tea Factory at Ooty, the Nilgiris and learnt Tea Processing and Tasting. During their industrial visit from 29.01.2018 to 02.02.2018.

SITAR-2k18:

The activities conducted by the department were--

1. Paper contest
2. Design contest
3. Poster presentation
4. Technical quiz





10. Others:

Sponsored R&D and Consultancy Activities:

-Nil-

Projects Completed:

On going Minor Projects Sanctioned By UGC:

S. NO.	Funding Agency	Name of the research project	Amount Sanctioned	Sanctioned Year	Faculty	Status
1	UGC	Development Of Nano Silver And Nano Copper Reinforced Low Density Polyethylene Antimicrobial Bottles	Rs. 3,00,000.00	2016	Dr.K.Sivaji Babu	ongoing
2	UGC	Agro Waste Based Nano Composites	Rs. 2,65,000.00	2016	M.Mounika	ongoing
3	UGC	Virtual Repair Of Engineering Structures Using Piezoelectric Materials	3,50,000.00	2014	U. Koteswara Rao	ongoing

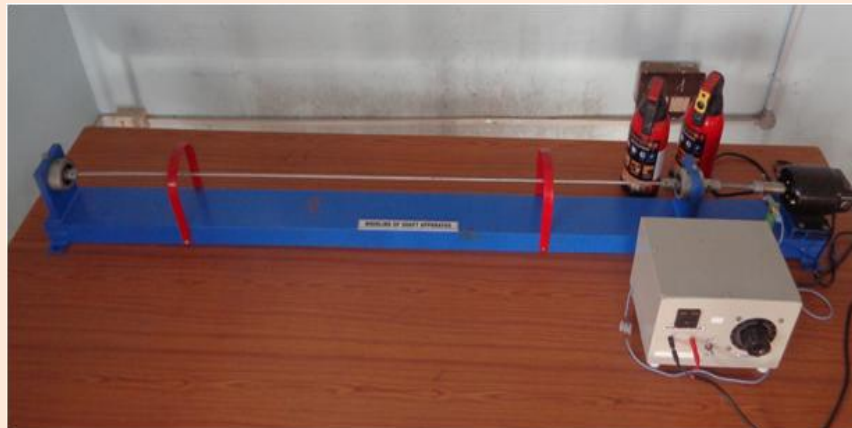
11. Alumni information:

The Alumni of ME (2012- 2016) batch, Mr. R N V Datta who is pursuing Masters in US interacted with III B.Tech students on Motivational Talk on Higher Education on 18-6-2018.



12. New Facilities Created:

Whirling of shafts is purchased in the department of mechanical engineering for machine dynamics lab on 04.04.2018 at a cost of Rs. 51,507/- to study of whirl phenomenon of shaft for different end conditions. It is used for carrying out experiments in Undergraduate and Post graduate programmes.



13. Placements:

- i. 2 students got placed in Sutherland Global Services campus placement drive on 20-02-2018.
14501A0336 and 15505A0324
- ii. 9 students got placed in VEE Technologies campus placement drive on 26-02-2018.
14501A0315, 14501A0319, 14501A0322, 14501A0325, 14501A0370,
14501A03A6, 14501A03B1, 15505A0314 and 15505A0317
- iii. Selected in KJ Systems campus Drive – 01 student
14501A0397
- iv. Selected in Vertex-Altruist Group campus Drive – 04 Students
14501A0321, 14501A0372, 15505A0304, and 15505A0332
- v. Selected in Future NDT campus Drive – 22 Students
14501A0311, 14501A0316, 14501A0318, 14501A0319, 14501A0325,
14501A0328, 14501A0336, 14501A0340, 14501A0359, 14501A0377,
14501A0391, 14501A0394, 14501A03A1, 15505A0302, 15505A0303,
15505A0305, 15505A0319, 15505A0321, 15505A0323, 15505A0324,
15505A0326, 15505A0329
- vi. Selected in Data foundry campus Drive – 03 students
14501A0397
14501A0398
15505A0332