

बी0 आई0 टी0 सिन्दरी, धनबाद, झारखण्ड

B.I.T. SINDRI, DHANBAD, JHARKHAND

(Department of Higher Technical Education and Skill Development, Govt. of Jharkhand)

MECHANICAL ENGINEERING
DEPARTMENT

PRESENTS

MEGIAZINE

DEPARTMENTAL NEWSLETTER

· <mark>alumni speaks</mark>

Read about former students who have gone on to achieve great things in business, carrier, arts and academia.

PLACEMENTS

Department of Mechanical Engineering, BIT SINDRI has announced successful placement drive for UG batch with sevral offers being rolled out across multiple sectors.

STARTUPS

Mechanical Engineering Department, BIT SINDRI provides great opportunities for start-ups, alumni and corporate to get involved with us

SECOND EDITION

DR. D.K. SINGH DIRECTOR

DR. S.K. SINGH HOD, ME



FROM THE DIRECTOR'S DESK

DR. D.K. SINGH

With immense pleasure, I would like to introduce this newsletter introduced by the Department of Mechanical Engineering, BIT Sindri.

The Department of Mechanical Engineering BIT Sindri was established to serve valuable human resources to the industry and society through the excellence in technical education and research in Mechanical Engineering.

It is said that success comes to those who work hard and stays with those who don't rest on the laurels of the past. By smoothly sailing past these tough times our students proved the same mantra. The contemporary world is somewhat different and a little unsettling to our imagination. We couldn't have ever thought of a moment in our life where all the academic infrastructure would be put on a halt for so long. Our proactive approach towards undertaking measures for the smooth and healthy conduct of our education system proved to be our shining armour in the fight against the situation. Our students in every sphere of life have proved that there's nothing like an unachievable feat in this world, no matter how contrary the situation behaves.

With the aim to motivate the weak, to address the average and challenge the gifted, a committed and supportive management, dedicated professors and a team of technological experts will keep striving to help the students in every regard



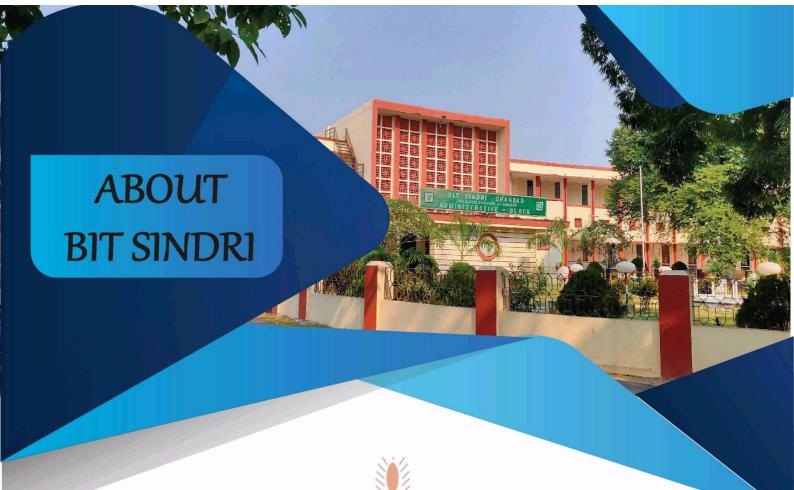
FROM THE HOD'S DESK

DR. S.K. SINGH

The Department of Mechanical Engineering established in the year 1949 welcomes you all. This branch is one of the oldest branches of BIT Sindri. In the past decades, we have witnessed a big leap in the terms of growth and development of our Department.

We have a well designed undergraduate and post graduate structure that includes various courses of B.Tech and M.Tech programs. Every year we admit young and bright minds into our UG and PG program. In recent years, We have been able to achieve a placement percentage of more than 70% and even amid these tough times, when the world is struck by a pandemic our students have yet again proved their potentials. They are successfully placed in various reputed companies of our country inspite of the various challenges imposed by the pandemic and lockdown. Starting from the theoretical knowledge to the best practical experiences in various laboratories that have been completely shifted to the online mode with proper visual explanation in this pandemic situation so that we do not allow our student's time being wasted. Our institute also focuses on new technologies of 3d printing and Cad designing with the help of Siemens COE established in our institute.

For the development in research and skills, the department of Mechanical Engineering has supported its students by providing opportunities in every possible ways. Various workshops and seminars are also organized by the department of Mechanical Engineering for the well being and development of the students.



Birsa Institute of Technology, established in 1949 is a premier institute under the department of science and Technology, Government of Jharkhand. Amid vast greenery and captivating peaceful ambience, the college is equipped with latest technology and modern science. The college deems to provide the best technical know-hows to the students to ensure their promising future in the field of the engineering.

The college offers education in ten disciplines of engineering namely- Mechanical, Electrical, Civil, Production, Mining, Metallurgy, Electronics & communication, Chemical, Information Technology and Computer Science. All the respective branches are equipped with high-end laboratories for the enrichment in practical spheres of students followed with the best in class theory explanation. The institute promises overall development of students, such as communication skills and presentation skills. The college aims to be the fulcrum of modern research and development in the field of engineering in the forthcoming years.



The vision of the institute is to provide the valuable human resources for the industry and society through the excellence in technical education and scientific research for the sustainable development.

The mission of the institute are as follows

- •To offer the state of the art undergraduate, postgraduate and doctoral program.
- •To generate new knowledge by quality research.
- •To undertake the collaborative projects with industries and society.
- •To develop human intellectual capacity with its full potential.
- To solve problems of society through innovation in technology.



ABOUT:

Being ingrained in many challenges and innovation across many fields, Mechanical engineering education is versatile in nature and to meet this imperative Mechanical Engineering Society of BIT Sindri was established.

Mechanical Engineering Society of BIT Sindri provides industrial exposure to find real world applications of concepts and at the same time also provides a platform to showcase and enhance the management skills of its members.

VISION OF THE DEPARTMENT

To provide valuable resources for industry and society through excellence in technical education and research in mechanical engineering with moral values for the economic and sustainable growth of the country.

MISSION OF THE DEPARTMENT

- 1. To offer state-of-the-art undergraduate, post graduate and doctoral programs in mechanical engineering.
- 2. To generate new knowledge by engaging in cutting edge research and development in mechanical engineering of new technology.
- 3. To provide conducive environment for collaborative projects with academia and industries.
- 4. To focus on problem solving skills with ethical values
- 5. To promote innovation and entrepreneurship.



ABOUT:

Being ingrained in many challenges and innovation across many fields, Mechanical engineering education is versatile in nature and to meet this imperative Mechanical Engineering Society of BIT Sindri was established. Mechanical Engineering Society of BIT Sindri provides industrial exposure to find real world applications of concepts and at the same time also provides a platform to showcase and enhance the management skills of its members.

MISSION & VISION:

- 1. To bring holistic development of students by gentle manifestation of the mind and thereby development of placement scenario.
- 2. To provide all round development of the department in field of research and training.
- 3. To bridge the gap between department and industry and thereby ushering in the new era essence.
- 4. To establish a strong foundation between the alumni and the department for all around holistic development.



MECHANICAL ENGINEERING SOCIETY

Welcome to the new edition of the annual magazine of Mechanical Engineering Department "Mechazine". This new edition promises to deliver the latest technical and industrial knowledge and also the effect of covid on our industries. This magazine also contains the steps taken by our college to deal with this pandemic.

In this edition ,we bring to you the latest industrial news and the reviews of some of the most esteemed alumni of our college regarding the latest industry reformations. The students will also get an idea about the career scopes after B tech and about reputed examinations like GATE, UPSC, CAT and others. We also have a special section dedicated to our freshers in which our esteemed alumni share their experiences and discuss about their respective career so that students get an idea about the goals they can aspire for. The students will receive vital inputs to tackle the issues they are yet to face from the experiences of our well accomplished seniors.

At last we would like to thank our alumni for their contribution in this edition and professors for their support. We would also like to express our gratitude to respected director sir and head of meachanical department sir. We hope all the readers have a good time reading our magazine and it assists all of you in some way or the other.

WORKSHOP ORGANISED BY

MECHANICAL ENGINEERING SOCIETY



Mechanical Engineering Department



INDUSTRY READINESS TRAINING WORKSHOP

CURRENT INDUSTRIAL ALACRITY
AND CAREER OPPORTUNITIES
IN THE FIELD OF
MECHANICAL
ENGINEERING

Registration Link in Description

2nd Nov-6th Nov 2020

No-Registration Fee & E-Certificates will be provided

EMINENT SPEAKERS



CAPT. A. CHOUDHARY

38+ Years Experience
Indian Army,
Head of Service Division
Maruti Suzuki



ER. RAMAN 37+ Years Experience Former Director Technical SAIL



ER. JANARDAN SHARMA 37+ Years Experience Ex Chief Manager R&D BPCL



DAN ER PREM KUMAR
A SINGH
rience 37+ Years Experience
ager Chief Engineer ,CIL



JHA
40+ Years Experience
Former CMD &
DIRECTOR Technical NTPC

FOR ANY QUERY CONTACT

MR. Amit Kumar Mishra Dr. P.K Singh

Email: amitkrm.mec15@itbhu.ac.in Contact Number: +91.8853382285 +91.9798003510

Department of Mechanical Engineering BIT Sindri Organized an Industry Readiness Training Workshop

Purpose of the workshop-

- 1. To prepare the students for **entry to mid-level jobs** in the local, diverse and **advanced area's** of Mechanical Engineering.
- 2. The Workshop was specifically designed to **bridge the skill gap** and make the **graduates ready for Industry**.
- 3. To discuss the **opportunity** for an Engineer in the **corporate world** with some real life examples.
- 4. The workshop was implemented with the help of **Alumni of BIT Sindri institute of 1972** entry Batch. They provided their valuable time to help the students of their Alma Mater.

WORKSHOP ORGANISED BY

MECHANICAL ENGINEERING SOCIETY













BY MECHANICAL ENGINEERING SOCIETY

WORKSHOP ORGANISED



The "Mechanical Engineering Department" of "BIT Sindri" had organized a mechanical workshop on the topic - "Advancements in Mechanical Engineering ".

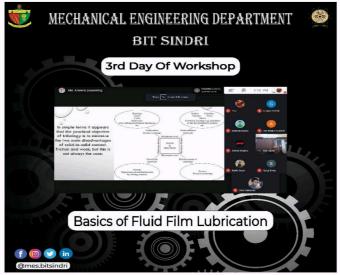
- 1. The workshop was jointly organized in collaboration with the Mechanical Engineering Department of "IIT-ISM Dhanbad".
- 2. The workshop deals with some of the **crucial topics** of Mechanical Engineering and thought us **about the advancement**.
- Agenda of the workshop was to make the students more market ready.

WORKSHOP ORGANISED BY

MECHANICAL ENGINEERING SOCIETY













Dear BITians,

It gives me immense pleasure to interact with you all through this newsletter. I would like to share some of my life experiences which might help you in doing better in your life. The 4 years of this college life, which you are living right now is very important and going to have a big role in your future. Your

Associate Manager R&D, Hero MotoCorp Ltd.

ABHAY KUMAR

(Mechanical 2008-12)

future will take a shape based on these 4 years of life @ BIT. There is no substitute of hard work & no shortcut of success. You'll be able to realize your dream by taking the best out of these 4 years of your college time

This is the most precious part of your life so make it fulfilling. Along with study and co-curricular activities, you should have fun and enjoyments also. So that your college memories will never get faded, the memory you create and the friends you make here in college is going to last forever. I personally feel that the best memory and friends I have made in BIT. In parallel be focused on your dream, whatever you want to become start preparing for that. Take guidance from your seniors/ Alumni in the respective fields. Do the best utilization of the

resources available in and around you. You are blessed to be the place where you are right now. Always remember the words of our founder director late Dr. D L Deshpande sir "BITians are second to none".

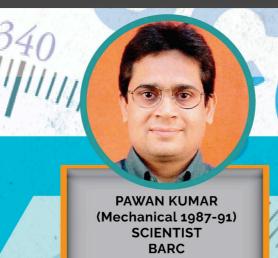
Manage your study well and utilize your time in efficient way as going forward you may not get so much of time to live your life the way you want due to your professional commitments. Be informative about the future trends as what is going to impact us the most. Explore new technologies and be innovative. You should learn about machine learning and artificial intelligent as these are the things which are going to impact our

life. Moving in an autonomous car is not less than a dream but with these technological advancements we are going to realize this very soon. Do not restrict yourself to only traditional study material be innovative and keep dreaming.

Wish you all the best!







Dear juniors,

It fills me with pride that you have endeavoured to take our beloved department to a higher level with publication of MECHAZINE. It's not only a magazine, it is a binder that creates a team. The spirit that you show here in publishing it, is all needed to achieve mountain of successes when you enter your profession.

I am in BARC, so would like to emphasize that fundamentals are fundamentals AND will be used throughout your life – professional as well as practical. So, continue to have firm grip on it. And I am sure, the department must be providing it in abundance.

BIT life is a Gold Mine life, and you will miss it forever as I do. So, enjoy it at fullest.

All the best to all of you.



First of all, through this wonderful medium of MECHAZINE, I would like to thank all my professors, seniors, technical staffs and the whole mechanical Deptt. of BIT Sindri for their support and handholding at each and every moment throughout my journey at BIT Sindri. I hope this support and blessings on me remains throughout my life.



Dear Juniors,

I am sharing some of the findings that I felt important during my college period. The most important thing is to understand your interest and choose you passion. Its a very basic thing but its extremely important.

If you spend 8 hrs a day on your work, it simply means you are going to spend one third of your life (approx. 14 years if you work from 20yrs to 60 yrs of your age) just doing your work day and night.

I had this feeling that this much amount of time is huge and if dedicated towards our vision, it can bring a lot of good changes to the world.

Once you know your passion, it can be of great satisfaction for you professionally if you enter that field. Also, it can also take more efforts at the beginning when you

choose your passion as your profession but it may lead you to fulfill your dreams. Knowing your passion, create a life goal, find your life's motive that concides with your passion. A very important tip at this stage is your life's motive must include the benefit of your society. This will give you peace.

Now once you know your life's motive, DO NOT WASTE YOUR TIME. Make the best use of resources that is available to you and proceed towards your goal without COMPLAINING.

Now, when you try moving in that direction, you may feel at sometimes that you don't have your batch mates in that direction. Like if I give you my example, I used to work alone in the whole branch in mechatronics field, but I continued as I had to do. In similar way, your passion may be different from other's but now its internet world and get connected over it to find your passion mates. Another very important thing that I would tell you is that always be honest and have concrete ethical values. NEVER BE CASUAL

340 Guidance for ESE



Ajay Kumar Sahu, Our Mechanical Trailblazer of the 2k14 achieved a prodigious All India Rank of 83 in ESE 2019.It's a delight to have him here share his insights on excelling Exams.

Tips and trick to crack any examination:

- •• First understand the syllabus, then analyse what you don't have to read.
- •• Make short notes on every chapter of all the subjects present in the syllabus with the intent of having quick revision.
- Attempt every test series honestly. Make notes of your mistakes in tests separately and go through them before you attempt another test series.
 - Last but not the least solve all the previous years'
 questions to stay at close-quarters
 with the level of the exam.

Guidance for GATE

The very first step should be to gain the exact knowledge of the syllabus concerning each subject and its subsidiary topics. For this referring to proper notes and study materials are enough.

After that, acquiring a grip on each and every concept is a must. The concepts must be crystal clear in such a way that all of them can be visualised in your mind.

Then, the nature of all subjects must be properly understood, which means, knowing the weightage and percentage of theory and numericals from each subject. For practice of questions, standard coaching workbooks should be chosen which

offers both variety and good quantity of questions.

Making short notes on each subject is extremely helpful in quick and effective revision. Mathematics must not be underestimated as it offers 13-15% weightage but takes less than 5% syllabus.

The complete preparation phase must be divided into two phases-

- (i) Learning phase
- (ii) Revision phase.

The revision phase is as important as the learning phase.

The two weapons of revision are-

(i) Short notes (ii) Test series.

Short notes must be revised periodically so that the formulae and concepts do not fade away with time.

In test series, three most important points which must be focused on are -

(i) Speed (ii) Accuracy (iii) Your mistakes.

I separately noted down each and every mistake made in the test series. I revised all those noted mistakes periodically as a result I was

able to prevent those mistakes further.

I also took part in online test series which was immensely helpful.

At last, throughout the preparation, I remained healthy both physically and mentally.



(Mechanical 2014-18) 8th AIR GATE

START-UP INCUBATION OF MED BIT SINDRI



Saarthi

Abhinav Kumar Sah and Sandipan Sarkar, students of Mechanical Engineering department Bit Sindri, won the 2nd prize in the National Entrepreneurship Summit organized in IIT (ISM) Dhanbad for their startup project named Sarthi.

As Car accidents are very destructive for many different reasons. Thus it seems to be difficult to make in time at the spot of accident due to lack of awareness. As a solution, the advent of Internet of Things (IoT) technologies can reduce the number of accidents.

Saarthi defines itself with it's work. When people will not help you, when you got stuck by an accident that very module installed in your vehicle will work as a life saving agent and will generate help for you. It also informs your dear ones about your mishap.

Get-Maid

Get-Maid is an online service providing platform which offer services ranging from all kinds of delivery services (be it your groceries, books, Stationaries, medicines, food items, etc) to numerous authentic room services (cleaning, laundry, water gallons supply, etc), running errands and even the tiniest of the tasks that someone wishes to be done by their helper at hand.



It is designed mostly for the college students keeping in mind that they invest their time in far more fruit-bearing tasks and leave the rest to us. As a helper who's available 24x7, we aim at providing the students with all the comfort they need, at minimal costs!

Founders: Ashutosh kumar, Aditya Jha



START-UP INCUBATION OF MED BIT SINDRI



port of IIM Ahmedabad's business incubator, Centre for Innovation Incubation and Entrepreneurship (CIIE).

Their motto is to design and develop innovative products that provide economic solutions to improve conventional farming practices. They want to solve tedious problems related to farming through technology intervention.

It was selected as top 30 startups from India in India-US
Startup Konnect event hosted by Nasscom, TiE Silicon Valley
and IIM Ahmedabad's CIIE.

The Indian STEPs (Science and Technology Entrepreneurs' Park) and Business Incubators' Association (ISBA) has awarded Innovative Company of the Year to Sickle Innovations for the year 2016 at XI ISBA Conference 2016, Pune

Strom Motors

Strom Motors was founded by Pratik Gupta, Jean-Luc Abaziou, and Dr. Gimer Blankenship in 2011 in Mumbai to create clean and smart mobility solutions through sustainable automobile technology.

Due to the rising population and the number of fossil-fuelled vehicles, we have made our eco-system inhabitable for the upcoming generations, with the combination of copious amounts of ingenuity and precision engineering. Strom's team has designed and developed an eco-friendly solution that is helping Indians to safely get around using sustainable automobile technology. Strom-R3 meets and exceeds the transportation needs of India's younger generations who collectively understand that you can indeed have it all without impacting the environment.

It had got the place in the rankings of Top 10 Startups - 2018 by Dept of Science and Technology, Govt of India.





SMITHY SHOP

A smithy is a place where blacksmiths do their work, heating, and shaping metal, especially to make tools. Smithy or Forging is the oldest shaping process used for producing small articles.



Welding is a fabrication technique that involves joining materials together by heating them to suitable temperatures, by applying heat with or without the use of pressure. Welding is used to produce permanent joints unlike bolting and riveting.





HEAT ENGINE WORKSHOP

In thermodynamics and engineering, a heat engine is a system that converts heat or thermal energy to mechanical energy, which can then be used to do mechanical work.

The state of an art lab facility gives the students a very good practical knowledge about heat engines and their working.



Carpentry and journey are common terms used with any class of work with wood.

Our Carpantary Workshop is stocked with full-sized tools, as they are the only ones strong enough to carry out proper work. Grow socially and emotionally through self-confidence, responsibility, appreciation for self and others, and respect for materials and safety.





HYDRAULICS LAB

The hydraulics subject is engrossed on the Water networks and drainage side of infrastructure requirements.

In hydraulics laboratory there is a range of experimental set-ups through which the students find the difference between the theoretical calculations and actual quantities of flow and its parameters in a pipe network or open channels.

HEAT TRANSFER LAB

Heat Transfer laboratory provides fundamental and industrial knowledge about modes of heat transfer, like conduction, convection and radiation, and their application.

The experimental setups available here are
1. Natural convection apparatus

2. Pin Fin apparatus.

3. Emissivity Apparatus





FITTING WORKSHOP

The term Fitting is related to the assembly of parts, after bringing the dimension or shape to the required size or form, in order to secure the necessary fit.

The operations required for the same are usually carried out on a workbench, hence the work is done on the bench is called Fitting work.



Machine shop is aimed with the introduction of common processes used in industries for manfaturing processes.

The machine tools typically include metal lathes, milling machines, machining centers, multitasking machines, drill presses, or grinding machines, many controlled with computer numerical control (CNC).





MATERIAL TESTING LAB

Materials Testing is a range of highly precise and reliable techniques that determine and measure the characteristics of materials, and in Material Testing Lab, we learn about the mechanical properties of a material. Material testing lab is well equipped with digital machines.

SOLAR ENERGY LAB

Our college has a Solar Energy Laboratory with state-of-the-Art Equipment and instruments facilities to carry out R&D and to evaluate the performance of Solar Photovoltaic and Solar Thermal System in the field.

This Solar Energy lab provide a chance to study the radiation characteristics of the sun and various methods of solar energy harnessing





SHEET METAL SHOP

Sheet metal is used basically with the aim of introduction to the technique of metal shaping in the process of cutting bending and folding with the help of hand tools or specific machines which deals with the working of metal sheets.

AUTOMOBILE LAB

The Automobile provides hands-on opportunities for students to work with automobile systems and subsystems, learning how to improve upon, drive trains power plants, steering systems, braking mechanisms and safety issues.

Equipment are: Single Cylinder Air Cooled Four Stroke. 2.MPFI Multi Cylinder Four Stroke Petrol Engine Test Rig 3. Multicylinder 4. Stroke Diesel Engine Test Rig





CAD CAM LAB

The CAM/CAD cam labs help to build the knowledge and skills in the field of designing based on designing softwares with the aim of enhancing knowledge in CNC machines which is used to cut work ,pieces while they are rotating.

There are 14 sophisticated Laboratories for Product Design and Validation, Advanced Manufacturing, Test and Optimization, etc

VIBRATION LAB

Vibration Laboratory is a modern facility for performing a wide range of experiments in the field of vibration. The Lab supports undergraduate courses, postgraduate courses, research scholars, student projects and advanced experimental research.



Along with this we also have Aerodynamic Lab, Heat and Mass Transfer Lab and Industrial Engineering Lab, which provide necessary industrial skills and knowledge to the students in order to you have an excellent future in industries. Laboratories in engineering minimises the gap between new college student and an experienced industrial engineer and help the student to get a good understanding about industrial problems and working, so that the students can give their best in the coming future in the field of Engineering.

Mechanical Engineering Department, BIT SINDRI placement process for batches of 2016-2020 & 2017-2021 B.Tech. batch recorded average salary offer of Rs 5.5 lakh per annum. The top 10 percent of the class bagged lucrative offers with salary package of Rs 8.2 lakh per annum. The average package of top quartile stood at Rs 6.6 lakh per annum while the median salary was Rs 4.5 lakh per annum. The highest salary offer stood at Rs 10.45 lakh per annum, which was made in Steels sector recorded highest salary offer of Rs 10.45 lakh per annum.

The Mechanical Engineering Department placement process 2020 witnessed participation from 25 renowned companies from various sectors that made 64 offers. Core companies such as TATA Steels Ltd, JSL Limited, JSW Steel Limited, TATA Power Ltd, Aditya Birla Group made maximum offers (52-58 per cent) in Mechanical Engineering Department placements 2020.Business & software domain with 13-15 percent of the total job offers.

"Such prize offers demonstrate the high value of the education imparted in the institute and our students' remarkable skills and capabilities" Head of Department, Mechanical Engineering Prof. (Dr.) S. K. Singh said.

(SESSION 2016-2020)

NAME	ROLL NO.	COMPANY	CTC(LPA)
Sonu Kumar	1600101	4IITeens	6
Mayank Kumar	1600057	ACC Limited	4.5
Gaurav Kumar	1600039	Adani Group	6
Abhishek Ash	1600003	Aditya Birla Group	6.6
Anand Saurabh	1600024	Aditya Birla Group	6.6
Indra Kumar Sharma	1600043	Aditya Birla Group	6.6
Jayant Kumar Prabhakar	16 <mark>00045</mark>	Aditya Birla Group	6.6
Rup Goswami	1600082	Aditya Birla Group	6.6
Saurav Kumar	1600092	Aditya Birla Group	6.6
Amresh Kumar	1600023	Amalgam Steel	2.5
Dilip Kumar Kisku	1600036	Amalgam Steel	2.5
Manish Kumar Mehta	1600055	Amalgam Steel	2.5
Raja Babu	1600075	Amalgam Steel	2.5
Shubham Hembrom	1600099	Amalgam Steel	2.5
Vishal Chandra Das	1600106	Analytics Quotient	5
Abhishek Gupta	1600005	Cognizant	4
Aman Agarwal	1600013	Cognizant	4
Ankit Raj	1600028	Cognizant	4

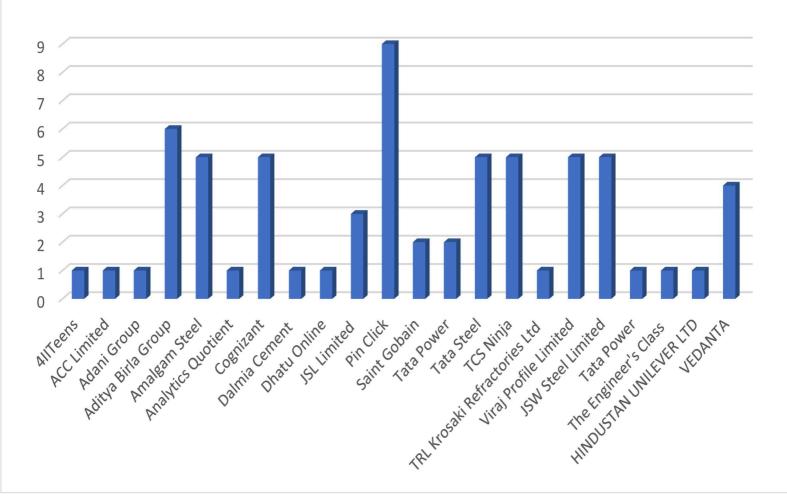
1600029	Cognizant	4
1600034	Cognizant	4
1600104	Dalmia Cement	4.5
1600066	Dhatu Online	5
1600029	JSL Limited	6
1600058	JSL Limited	6
1600064	JSL Limited	6
1600015	Pin Click	5.4
1600026	Pin Click	5.4
1600036	Pin Click	5.4
1600038	Pin Click	5.4
1600043	Pin Click	5.4
1600063	Pin Click	5.4
1600066	Pin Click	5.4
1600078	Pin Click	5.4
1700010D	Pin Click	5.4
1600018	Saint Gobain	6
1600107	Saint Gobain	6
	1600034 1600104 1600066 1600029 1600058 1600015 1600026 1600038 1600043 1600066 1600078 1700010D 1600018	1600034 Cognizant 1600104 Dalmia Cement 1600066 Dhatu Online 1600029 JSL Limited 1600058 JSL Limited 1600064 JSL Limited 1600015 Pin Click 1600026 Pin Click 1600036 Pin Click 1600038 Pin Click 1600063 Pin Click 1600066 Pin Click 1600078 Pin Click 1700010D Pin Click 1600018 Saint Gobain

Abhishek Kumar Gupta	1600007	TATA Power Ltd	5.5
Vivek Kumar	1600108	TATA Power Ltd	5.5
Sandeep Prasad	1600086	TATA Steel Ltd	10.1
Yash Singh	1600110	TATA Steel Ltd	10.1
Abhijeet Sinha	1600002	TCS Ninja	3.4
Amit Kumar Keshri	1600020	TRL Krosaki Refractories Ltd	4.65
Aman Kumar	1600015	Viraj Profile Limited	3.6
Gangadhar Sardar	1600038	Viraj Profile Limited	3.6
Satish Kumar	16 <mark>00089</mark>	Viraj Profile Limited	3.6
Akash Kumar	170 <mark>0001</mark> D	Viraj Profile Limited	3.6
Vikas Kumar Mondal	1700025D	Viraj Profile Limited	3.6
Shekhar Kumar	1600096	JSW Steel Limited	6.6
Sudhanshu Ranjan Prakash	1600102	JSW Steel Limited	6.6
Manideep Sinha	1600052	JSW Steel Limited	6.6
Ankit Kumar	1600025	JSW Steel Limited	6.6
Navin Kumar Singh	1600061	JSW Steel Limited	6.6
Mukund Madhav	1600059	Tata Power	5.5
Manideep Sinha	1600052	The Engineer's Class	5

(SESSION 2017-2021)

NAME	ROLL NO.	COMPANY	CTC(LPA)
AVINASH KUMAR	1700024	TATA Steel Ltd	10.52
ANSHUL KUMAR MISHRA	1700020	TATA Steel Ltd	10.52
ABHISHEK PAUL	1700005	TATA Steel Ltd	10.52
ASHISH RANJAN	1700023	HINDUSTAN UNILEVER LTD	8
ABHISHEK KUMAR	1700006	TCS NINJA	3.36
SATYAM KUMAR	1700077	TCS NINJA	3.36
VIKRANT TOMAR	1700099	TCS NINJA	3.36
RAHUL DEY	1800019D	TCS NINJA	3.36
HARSH	1700031	VEDANTA	7.95
DEEPAK AJMANI	1700027	VEDANTA	7.95
MD. NAUMAN SHARAF	1700044	VEDANTA	7.95
SHUBHAM KUMAR	1700084	VEDANTA	7.95

STATISTICS



MAJOR RECRUITERS









pinclick TATAPOWER *vedanta









INTERNSHIP STATISTICS

BIT Sindri provides world class internship opportunities for its students. Internships are known to be one of the most important learning experiences in an under graduate's period of study.

It is during this internship where students gain their first exposure to the industry taking their first stride towards becoming a competent professional.

Students are also made aware of the latest industrial technology by regular industry visits. Students have been pursuing internships and projects in various national and international academic institutions and companies such as TATA Steel Ltd, JSL, TSPDI, BARC, MITACS, etc.

Many students also secure research based internships in different national and international organizations.

The stats in relation to the internships are as shown in the next page :-

INTERNSHIP STATISTICS

NAME	BATCH	INTERNSHIP COMPANY	STIPEND	DURATION
Ashish Ranjan	2017-21	Nestlé	Rs.5000	1 month
Nitin choudhary	2017-21	Larsen and Toubro		1 month
Anshul Kumar Mishra	2017-21	TATA Steel Ltd	Rs.10,000/month	2 months
Rahul Kumar Paswan	2017-21	Pie Infocomm Pvt Ltd		1 month
Nilesh Kumar	2017-21	BITSAANA		1.5 months
Abhinav Kumar Sah	2018-22	Electromotion e-Vidyut Vehicles TATA Steel Ltd 3. Maruti Suzuki	Rs.3,000/month, Rs.10,000/month	4 months, 2 months, 6 weeks
Aditya Jha	2018-22	TATA Steel Ltd	Rs.10,000/month	2 months
Jyotsna Priyadarshi	2018-22	TATA Steel Ltd	Rs.10,000/month	2 months
Ashutosh Kumar	2018-22	Mitacs Globalink Research	Rs.70,236	12 Weeks
Aman Siddhartha	2018-22	Dhatu Online 2. Volvo(VECV) 3.Vardhan Consulting Engineers		3 months, 1.5 months, 1 month
Ranjan Kumar	2018-22	INDIA Redefined		1 month
Sonu Das	2018-22	Var <mark>dhan Consultin</mark> g Engineers		1 month
Manish Kumar Mandal	2018-22	TATA Power Ltd, Wipro, Vedantu	Rs.10,000	1 month
Roshan Kumar Rajak	2018-22	Dhatu Online, CIMFR		3 months,2month
Uttam Kumar	2018-22	Vardhan Consulting Engineers		1 month 15 days
Ayush Umang	2018-22	Dhatu Online		3 months
Suraj Kumar	2018-22	Vardhan Consulting Engineers		1 month 15 days
Amarnath Nonia	2018-22	Vardhan Consulting Engineers		1 month 15 days
Vivek Kumar Munda	2018-22	Vardhan Consulting Engineers		2 months
Sumit Ranjan	2019-23	Vardhan Consulting Engineers	70,00	2 months
Ronit Singh Choudhary	2019-23	Vardhan Consulting Engineers		2 months
Sanjeev Kumar Ohdar	2019-23	Vardhan Consulting Engineers	A second	2 months
Pallavi Singh	2019-23	Vardhan Consulting Engineers		2 months
Aman Prasad	2019-23	Vardhan Consulting Engineers		2 months



Sports and Games are an integral part of B.I.T. Sindri's total educational programme. The Department of Mechanical Engineering is committed to provide students with a worthwhile and enjoyable learning environment, while providing the necessary knowledge and tools to adhere to lifetime activity and better health.

Students get to understand the importance of sound health and are able to recognize fitness principles as they relate to better health and will be able to recognize the physical and mental benefits of increased activity and to determine factors involved with the development, fitness levels and training strategies.

Some of the top athletes who actively participated and achieved success in varius sports events are Mohit tubid, Marshal murmu, Subhash murmu, Kushagra kumar, Sahil Raj,Sunny Edwin, Satwik Singh, Raunak Raj, Aatish kumar, Kundan Oraon, Sibaram majhi, Sunil topno

Bhakta Ranjan Singh Sardar. and Abhishek Kumar Jha

Some of the recent Tournaments we won are:-

- · SPARDHA 2019
- FOOTBALL 2018
- FOOTBALL 2019
- · VOLLEYBALL 2019

In the country, soon bio-fuel produced from Waste Material will be used for fueling vehicles, after Bio diesel and ethanol blend petrol, in future bio fuel fuel will also be used in diesel and petrol blend.

Research is going on to make bio fuel from waste material at BIT Sindri. Research institute Prof. SC Roy said that the research work is going on for waste oil from vegetable oil to vegetable oil at the industrial level, from the peel of grain material, West Material There is also a research on the possibility of using ready-made oil in fuel oil. The Government of India has approved the use of bio-diesel and ethanol blended petrol in future.

India produces food grains on a large scale for about 150 crore people, but till now grains have been considered as waste material. The situation will change in the future and the grain shells, vegetable waste material and reed will be used to produce fuel oil. Research institute Prof. SC Roy informed that production of fuel oil from West Material will be a complex process, for this research, a single cylinder four-stroke multifuel research engine has been purchased at a cost of Rs 33 lakh made by I Techno Mac Pune. Dr. Roy said that with the help of this machine, research is also being done on how much quantity of the best material fuel oil to be blended into diesel or petrol. Data analysis is being done.

SI. No.	Author (s)	Title of the paper	Name of Journal
1.	Singh PK Mandal SK, Kumar S, , Mishra SK,	Performance investigation of nanocomposite based solar water heater	Energy
2.	Singh PK, Mondal S, Das AK, Mishra SK	Production of W-based nanoparticles via spark erosion process along with their characterization and optimization for practical application in gas sensor.	Applied Physics A
3	Ranjan, R., Ghosh, S.K. and Kumar, M	Fault Diagnosis of Journal Bearing in Hydropower Plant Using Wear Debris, Vibration and Temperature Analysis: A Case Study	Proceedings of the iMeche, PartE: Journal of Process Mechanical Engineering
4	Kumar S Singh PK Mandal SK, , , Mishra SK	Performance Analysis of a Thermoelectric Generation System with Different Flow Configurations	Journal of Electronic Materials
5	Prasad, R.S., Singh, S.N. and Gupta, Amit Kumar	Combined Laminar Natural Convection and Surface Radiation in Top Open Cavities with Right Side Opening	Journal of Engineering Science and Technology
6	Mandal S, Kumar S, Singh PK, Mishra SK Das AK	Performance investigation of CuO- paraffin wax nanocomposite in solar water heater during night	Thermochimica Acta
7	Ranjan, R., Ghosh, S.K. and Kumar, M.	Modelling of Wear Debris in Planetary Gear Drive	Industrial Lubrication and Tribology

8	Kant, R., Pattanaik, L.N.,	Sequential optimisation of	International Journal of
	Pandey, V	reconfigurable machine cell feeders and production sequence during lean assembly	Computer Integrated Manufacturing
9	Kumar B, Nayak RK, Singh SN.	Experimental Analysis of the Thermo- Hydraulic Performance on a Cylindrical Parabolic Concentrating Solar Water Heater with Twisted Tape Inserts in an Absorber Tube	Zeitschrift für Naturforschung A
10	Prasad R.S., Singh S.N. and Gupta Amit Kumar	A Systematic Approach for Optimal Positioning of Heated Side Walls in a Side Vented Open Cavity under Natural Convection and Surface Radiation	Frontiers in Heat and Mass Transfer
11	Prasad R.S., Singh S.N. and Gupta Amit Kumar	Coupled Laminar Natural Convection and Surface Radiation in Partially Right Side Open Cavities	Frontiers in Heat and Mass Transfer
12	S. K. Chaudhary, K. K. Singh & R. Venugopal	Effectiveness of using carbon nanotubes on ILSS of glass fiber reinforced polymer laminates	Transaction of Indian Institute of metals
13	K. K. Singh, S. K. Chaudhary& R. Venugopal	Enhancement of flexural strength of glass fiber reinforced polymer (GFRP) laminates using multiwall carbon nanotubes (MWCNTs)	Polymer engineering & Science
14	K. K. Singh, S. K. Chaudhary, R. Venugopal& Anand Gaurav	Bulk Synthesis of Multi-walled Carbon Nanotubes by AC Arc Discharge Method	Proc I MechE part N: J nanomaterials, nanoengineering and nanosystems

15	Singh PK, Kumar P,	Synthesis and characterization of CuO	Bulletin of Materials
	Hussain M, Das AK,	nanoparticles using strong base	Science
		electrolyte through electrochemical	
-/	Nayak GC	discharge process	
16	Singh PK, Das AK, Hatui	Shape controlled green synthesis of	Materials Chemistry and
	G, Nayak GC	CuO nanoparticles through ultrasonic	Physics
		assisted electrochemical discharge	
	-7	process and its application for supercapacitor	
		supercapacitor	
17	Singh PK, Bishwakarma	Study of Annealing Effects on Ag2O	Journal of Electronic
	H, Das AK	Nanoparticles Generated by	Materials
		Electrochemical Spark Process	
18	Singh PK, Kumar P, Das	Un-conventional Methods for	Proceedings of the
	AK,	Synthesis of Metal and Non-Metal	National Academy of
		Nano-particles: A Review.	Sciences, India Section A:
7			Physical Sciences
19	Kumar P, Singh PK,	A novel application of micro-EDM	Materials and
	Kumar D, Prakash V,	process for the generation of nickel	Manufacturing Processes
		nanoparticles with different shapes	y
	Hussain M, Das AK		
20	Das AK, Kumar P, Sethi A,	Influence of process parameters on	Journal of the Brazilian
	Singh PK, Hussain M	the surface integrity of micro-holes of	Society of
		SS304 obtained by micro-EDM	Mechanical Sciences and
			Engineering
			Engineering
21	Roy D, Das AK, Saini R,	Pulse Current Co-deposition of Ni-	Materials and
	Singh PK, Kumar P,	WS2 Nano-composite Film for Solid	Manufacturing Processes
	Hussain M, Mandal A,	Lubrication	
	Dixit AR		
		1	

22	Prakash V, Kumar P,	Micro-Electrical Discharge Machining of Difficult-to-Machine Materials: A	Journal of Engineering
	Singh PK, Hussain M, Das AK, Chattopadhyaya S	Review	Manufacture
23	Prakash V, Shubham, Kumar P, Singh PK, Das AK, Chattopadhyaya S, Mandal A, Dixit AR	Surface alloying of Miniature components by Micro Electrical Discharge Process	Materials and Manufacturing Processes
24	Hussain M, Mandal V, Singh PK, Kumar P, Kumar V, Das AK	Experimental study of microstructure, mechanical and tribological properties of cBN particulates SS316 alloy based MMCs fabricated by DMLS technique	Journal of Mechanical Science and Technology
25	Hussain M, Kumar V, Mandal V, Singh PK, Kumar P, Das AK	Development of cBN Reinforced Ti6Al4V MMCs through Laser Sintering and Process Optimization	Materials and Manufacturing Processes
26	Som Nath Saha and S. P. Sharma	Performance Analysis of Double Flow Double Exposure Solar Air Heater	Journal of Mechanical Science and Technology
27	R.K Nayak, Singh, S.N	Effect of geometrical aspects on the performance of jet plate solar air heater	Solar Energy
28	Rajan Kumar, M.K. Mishra, S.K.Singh and Arbind Kumar	Experimental evaluation of waste plastic oil and its blends on a Single Cylinder Diesel Engine	Journal of Mechanical Science and Technology

AN EMAIL TO JUNIOR

New Message





To juniors@bitsindri.ac.in

Subject An honest e-mail to juniors

Dear all.

Alfred Lord Tennyson has very rightly said, "The old order changeth, yielding place to new." However, the experiences and learnings shall remain immortal forever, passed onto the generations. As a Final Year student of the much coveted Mechanical Engineering Department (hereafter referred to as MED), it becomes all the more important to share a few pieces of my learnings with the future of both MED and BIT Sindri. What follows is a personal narrative moulded into words and may sting a little. Issues that demanded a majority of my concern have been dealt with in the next few points and are completely non-exhaustive.

1.NO SELF-LOATHING OR SELF-GLOATING

A majority of the students who enter the college spend their own valuable time loathing themselves about the decision to pursue engineering at BIT or what could've been done better in the past. Also, there are some others who brandish the tag of being a BITian or even better, a student at MED much more than it deserves to be and are TOTALLY dependent on the tag of the college/branch for their own success in future. Such students fall under the category of gloaters. Eventually, these two categories realize, unfortunately very late, that both self-loathing and self-gloating are irrelevant to the present. What matters is the here and now and your own ability to work hard.

2.GOAL SETTING

A first year student enters college with a lot of hope and determination. A lot of them have high end goals, viz cracking competitive exams, securing a decent placement offer on campus, pursuing higher studies etc. However, by the end of their stint at BIT, only a few are able to remain focused on what they dreamt initially in the first year, and only a very less number of people achieve it. Apart from this, a major chunk remains clueless throughout their 4 years and never decide what goal/career path to tread on. Make sure you try to have a properly strategized end goal and stick to it, no matter what. If in doubt, consult your professors or seniors. And let me assure you, there is no dearth of academic brilliance in MED, which houses only the top rankers!

Send















AN EMAIL TO JUNIOR

New Message



To juniors@bitsindri.ac.in

Subject An honest e-mail to juniors

3.TIME IS PRECIOUS

Abundance of anything reduces its value and at BIT Sindri, time is definitely in abundance. Albeit, this time is not constructively used by the students and the 4-year long course seems to never end for them. Rest assured, here at BIT, time flies faster than you think! After you've set a personal goal, make sure you utilize time at BIT to pursue it. Moreover, the Mechanical Engineering Department is highly supportive to its students. Prepare for exams, improve your personality, participate in a lot of events and you'll definitely see how you'll evolve as an individual.

4.TO CODE OR NOT TO CODE?

A very frequently asked question by juniors, especially the more recent batches, is their dilemma whether to learn to code or not. If you're a 1st year student, explore all the areas that fascinate you and then decide which path to follow. However, make sure you have a basic knowledge of coding. As students of Mechanical Engineering, it is better to utilize the Siemens Col Labs or online platforms and learn skills relevant to ME, viz. CAD/CAE, Thermal Analysis, FEA or CFD.

5.A BACK-UP PLAN

Although students of MED have had a comparatively decent placement record, a certain level of uncertainty always exists. For students targeting only campus placements, an overall idea about your various subjects and a certain level of expertise with general aptitude may help you sail through an interview. Although, it is my advice to have a back-up career plan to fall upon in case you miss out on any chances.

Send















AN EMAIL TO JUNIOR

New Message



juniors@bitsindri.ac.in To

Subject An honest e-mail to juniors

These were only certain important areas, which in my view, demanded attention. Lastly, I would ask you to thoroughly enjoy your life at BIT Sindri and keep no regrets for future. The Mechanical Engineering Department is the crown of BIT and you all, my dear juniors, are its shining jewels.

On behalf of the entire Board of Governors of MechESoc and Final Year Students of MED, 2k17, I wish you all immense success in the future.

Hail Mighty, Hail BIT!

Regards,

Anshul Kumar Mishra BATCH-2k17-21

Send



































































THANK YOU

It is our privilege to propose a vote of thanks and acknowledge the essential contributions of all those who worked hard to put together this magazine named "MECHAZINE".

First and foremost we would like to thank our PATRON- Dr. D.K.SINGH sir, HOD

Mechanical Engineering - S.K.SINGH sir, for their perfect logistic support and extended guidance to all of us while the magazine was taking shape.

We would like to thank our esteemed faculty members of our department, because of whom the performance of our department is deemed to be excellent in every field.

We would like to thank our astute and ingenious
Alumni for taking out precious time from their busy
schedules and enlightening us with their knowledge,
sharing their personal experiences related to their
respective field, for always guiding and supporting your
junior.

We would like to thank the post bearers of our MECHANICAL ENGINEERING SOCIETY for guiding and supporting us in making our magazine.

Well, Such type of magazine is not made in one day.

The wheels start rolling months ago. It requires planning and a birds eye for details. We have been fortunate enough to be backed by a team of very motivated and dedicated STUDENT COORDINATORS of MES who know their job and are result oriented.

We cannot thank everyone enough for their involvement and their willingness to take on the completion of tasks beyond their comfort zones!

We have tried our best to give you as much information about our department as possible.

We hope that all of you will be able to know your department easily from this magazine. Hope you like it.

Thank you!