



गुरु घासीदास विश्वविद्यालय, बिलासपुर

Guru Ghasidas Vishwavidyalaya, Bilaspur

A Central University established by the Central University Act 2009 No. 25 of 2009

(Production & Industrial Engineering)

Knowledge PIE



**A Bi-Annually Newsletter Of
Industrial & Production Engineering**

**VOLUME 1
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School of Studies of Engineering
and Technology, GGV, Bilaspur

KNOWLEDGE

PIE (Production and Industrial
engineering)

2021-2022 Vol1

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Prof. Alok Kumar Chakrawal

Hon'ble Vice-Chancellor,
Guru Ghasidas Vishwavidyalaya

I'm pleased to say that the department of Industrial and Production Engineering has released the first issue of the departmental Newsletter, "Knowledge PIE".

Academics entails more than simply classroom training. Students must keep up with current events in order to preserve their talents. This newsletter will serve as a forum for students to share their ideas and show off their ingenuity. It would also act as a catalyst for industrialists to organize and participate in various events with zeal and ardour.

The Department of Industrial and Production Engineering has an impressive track record of accomplishments. We are confident that the new idea of publishing a quarterly newsletter called "Knowledge PIE" will contribute to the overall growth of our exceptional human resources. We have a responsibility to groom and empower students to accomplish their goals.

I'd like to congratulate the Department of Industrial & Production Engineering on the release of their first department newsletter, which will contribute to presenting and honing students' various skills and abilities. I congratulate everyone who has been a part of this wonderful edition of this newsletter.

I wish the Department of Industrial and Production Engineering the best of luck in their future endeavors.

Prof. Alok Kumar Chakrawal
Vice-Chancellor

From H'VCs Desk



Prof. Shailendra Kumar

Registrar, Guru Ghasidas Vishwavidyalaya

It's a matter of great pride that the Department of Industrial and Production Engineering, School of Studies of Engineering & Technology is publishing its Electronic Newsletter – "Knowledge PIE" that will showcase the events and happening of the Industrial and Production Engineering department at Guru Ghasidas Vishwavidyalaya. The newsletter aims to bring the intriguing world of industries to the attention of the younger generation.

I'd like to express my gratitude to our bright and dedicated team of academicians who are working to transform Guru Ghasidas Vishwavidyalaya's School of Studies of Engineering and Technology into a bastion for nurturing hardworking students in India.

This branch has yet to be delved . In this and the coming semesters, I hope to connect with numerous of you. And I am agitated to watch how the IPE family will continue to rise to moment's and hereafter's difficulties.

Best wishes to everyone who contributed to the success of this newsletter.

Prof.Shailendra Kumar
Registrar



Prof. T.V. Arjunan

Registrar, Guru Ghasidas Vishwavidyalaya

I am pleased to know that Guru Ghasidas University's School of Studies in Engineering and Technology is introducing its Industrial and Production Engineering Department's newsletter "The Knowledge PIE". Over the last year, a lot has changed in the School of Engineering and Technology, and one of the most noteworthy additions is, "The Knowledge PIE", the newsletter by the Department of Industrial and Production Engineering. This change to a digital newsletter publication not only allows us to make better use of our resources, but it also helps us to be more ecologically conscious. Most importantly, it allows us to share departmental activities. The Department of Industrial and Production Engineering has created and is continuing to establish creative venues, and the combined efforts of students and faculty will provide the required connection and bonding.

I'm confident that the newsletter will become a must-read account of events in our community. I congratulate the faculty members and student editorial team on their endeavor and wish them success. Best wishes to the team of "The Knowledge PIE".

Prof. T.V. Arjunan
Dean, SoSE&T



Prof. S.C Shrivastava

HOD, Department of Industrial & Production Engineering

The Department of industrial and Production Engineering in Guru Ghasidas Vishwavidyalaya has always proved to be an epitome of all-round development. It is one of the rarest branches of engineering which not only polishes students for technical excellence but also nurtures them to yield management solutions. With this fantastic initiative, We, the Department of Industrial and Production Engineering, School of Studies of Engineering & Technology, GGV, will reach out to the greatest number of technological minds and showcase the department's accomplishments with "The Knowledge PIE," the Quarterly Newsletter, which will be loaded with accomplishments and many events organized by us, including technologies that are currently trending in the tech industry and will most likely be game changing in the coming years.

As Industrial and Production Engineers, we statistically infer the status of a system, anticipate its future state, undertake what-if analysis using alternative system designs, and use limited resources to design and operate the system optimally. As the world has navigated a pandemic, such data-driven judgments have come to the fore.

I am looking forward to connecting with the great fresh minds as we embark on new adventures in coming semesters. And I'm excited to see how our department will continue to rise to today's issues while anticipating and addressing future challenges.

Prof S. C. Shrivastava
HOD

Article by Faculties



Dr. Ganesh Prasad Shukla
Asst. Professor,
Dept. of IPE

Importance of Green Manufacturing Practices

I recently read an article in the Economic Times on "Garbage Mountains" discovered in Shri Kedarnath Dham. Hearing that we, as humans, can't even keep our god's home clean was really depressing to me. "It is an ecological calamity and a lack of civic sensibility," said Dr. Suneel Pandey, Director of Environment and Waste Management Terrain, which I believe is accurate to some extent. Well, people believe that human beings should focus more on the disposal of waste but as per my knowledge and studies, I believe that targeting the source could be an optimum option rather than forcing other secondary branches of the entire waste management cycle. Yes, it is not only how we dispose of waste, but also mostly about how and why we produce them. You will understand the concern level when you realize that we are generating around 74.6 lakh tonnes of hazardous waste annually and all of this is purely industrial waste.

Now, what can be done? We cannot shut all our factories as our needs and daily lifestyle habits are highly dependent on them. Then, are we on the verge of getting masses of pile up waste around us just as the "Mountain Garbage" at Shri Kedarnath Dham or the "Garbage Rivers" just as the tributaries around Yamuna? "Yes," if we continue our traditional methods of manufacturing and producing goods and "No," if we implement Green Manufacturing Practices.

Green Manufacturing Practices (GMPs) are approaches used in the manufacturing industry to minimise the environmental impact of production.

It necessitates the replacement of older, traditional manufacturing elements with newer,

greener ones that contribute to the process' overall sustainability. But why is green manufacturing deployment only a viable option? Let's look at this in the context of a real-life incident. HUL (Hindustan Unilever), a major FMCG (Fast Moving Consumer Goods) company in India, announced in February 2021 that all of its plant activities would be coal-free.

Yes, initially it sounded like a bold statement, but it was true. HUL has replaced coal as the fuel from its boilers and now will be using renewable energy sources such as biomass and biodiesel procured with the help of local farmers. Now, you might be thinking this would have affected their cost, right? Well, yes it did not increase the expenses though, in fact, the company is saving around whilst reducing 4 million Kg of CO₂ emissions. Hence, a complete win-win situation to take home. Not only this but HUL was also one of the first companies to replace hazardous ingredients from its detergent powders and replaced them with eco-friendly sustainable options.

These processes and approaches demonstrate how Green Manufacturing Practices are crucial for the entire industrial ecosystem.



Dr. Atul Kumar Sahu
Asst. Professor, Dept.
of IPE

The Role of Industrial Engineering:

The branch of Industrial Engineering is concerned towards designing operations for attaining sustainable industrial outputs. Industrial Engineering is a profession that is allied with the optimization of process parameters, system ergonomics, synchronization of organizational assets, right deployment of human resources, improvement in layouts, optimization of facilities and implementation of systems elements i.e. people, money, knowledge, information, equipments etc. crucially and productively.

Industrial Engineering is central to manufacturing operations and aids in improving productivity, efficiency, increasing knowledge sharing capabilities, demonstrating quality inspection, inducing flexibility, providing agility, collaborative working, maintaining competitiveness, profitability and reduces resource requirements. The same strive towards 10R capabilities i.e. Refuse, Rethink, Reduce, Reuse, Repair, Refurbish, Remanufacture, Repurpose, Recycle, and Recover for advancing manufacturing capabilities. demonstrating quality inspection, inducing flexibility, providing agility, collaborative working, maintaining competitiveness, profitability and reduces resource requirements. The same strive towards 10R capabilities i.e. Refuse, Rethink, Reduce, Reuse, Repair, Refurbish, Remanufacture, Repurpose, Recycle, and Recover for advancing manufacturing capabilities.

Thus, one should lead towards fascinating their career under said realm for advancing strategic practices in various application fields i.e. Logistic Management, Safety Management, Supply Chain Management, Production Management, Quality Management, Human Resource Management, Marketing Management, Inventory Management, Material Selection, Procurement Planning, Supplier Selection, Selection of Competent Machinery, Forecasting, Strategic Planning, Facility Location, Layout Design etc.



Mr. Anurag Singh
Asst. Professor
Dept of IPE

Energy Crisis And Way Ahead

Amidst coal shortage in the country (as reported), frequent power cuts, rising peak electricity demand post pandemic, rising fuel cost, inadequacies of renewables and all the havoc in news media enforced even a common man to ponder upon why the crisis? and what is the way ahead? Recently, I got a call from one of my learned relative member with a curiosity to know what the way ahead is. We discussed but couldn't conclude. Can

you help? Ponder! Renewables are considered to be the only solution due to obvious advantageous reasons but where are we right now? Let's discuss. Solar Energy being the obvious choice has so many challenges to deal with. Intermittent nature, land/place and area requirement are the biggest concerns among all of them. Application of Solar energy is categorized in two categories: first is to generate electricity by using Photovoltaic cells, which converts the solar energy directly into electrical energy. Another use is called as CSP (Concentrated Solar Power), in which we use concentrated solar energy to produce heat which is further used for various applications. Wind energy is very important because it has the capacity and it is useful in balancing the intermittent nature of solar energy. Biomass and Municipal solid waste can be supplemented to reduce the burden on domestic coal supply. The energy demand is anticipated to rise around 5% per annum and we were able to install only 14 GW of renewables in FY 22. Total installed renewable capacity till Dec. 21 was 151 GW. This is nowhere close to 500 GW of energy production from renewables as committed in Panchamrit by our Honorable Prime Minister.

Hydrogen, a fantastic energy carrier and a promising alternative has a lot of possibilities. It also has a lot of challenges, starting from its production to storage to delivery and end use. Hydrogen has as high as 140 MJ/kg of calorific value but suffers with low energy density by volume. Its cryogenic nature and safety issues limit its use as an alternative. Recently India launched its National Hydrogen Mission to promote and use Green hydrogen as an alternative. In conclusion, if we are already not in a crisis, we are heading towards one. The crisis is real and approaching very fast. We really need these 500 GW of renewable energy.. A hybrid system based on solar, wind and Hydrogen along with a good energy storage system can be a promising way. Researchers are working on it and developments are being made.

Article by Students



Mani Rathi
Student of 2nd Yr,
Dept of IPE



Pragya Rachakonda
Student of 4th Yr,
Dept of IPE

Global Supply Chain Disruption And The Way Ahead

The Pandemic crippled the global supply chain, the war in Ukraine exacerbated it further, causing barriers in movements of oil, gas, grains, auto parts and many more. Demand remains robust, but factories are simply not able to keep up, as supply chain constraints are big hindrance in production. Over half of semi-conductors are made in few plants of Taiwan, south Korea and a shortage of it is forcing car firms to idle plants all over the world. China produces 72% of the world's cobalt, used in electric car batteries. Such dependence is particularly threatening when geopolitics is becoming more confrontational. As countries battle the pandemic and face up face up to rising geopolitical tension, governments everywhere are switching from the pursuit of efficiency to new mantra of resilience and self-reliance. Here government have a role in securing supplies – they can support research and development, including for new energy sources. Recently EU said it would double its share of world chip-making by 2030 to 20%, which followed a pledge to be self sufficient in batteries by 2025.

Last year Xi Jinping lunched “dual circulation”, aimed at insulating china's economy from outside pressure. In the agenda of Narendra Modi, India's increasingly protectionist PM, they get 'vocal for local' and 'Atmanirbhar bharat'. It makes sense for supply chain to be robust, when national security is at stake. These policies of major economies provides certain relief in securing supply chains, but at the cost of eliminating globalization and free market to certain extent.

Career Guidance

Whenever we listen the term Engineering or Bachelors of Technology the first thing that hits our mind is machines. When asked about the major branches in this under-graduation degree, we say mechanical, electrical, civil and computer science. Apart from these branches there are several others too. One of them is the Industrial and Production branch. While this is a one specific branch it comprises of two separate terms 'Industrial' and 'Production'. Many of us assume all the branches in engineering are technical; this branch has technical as well as managerial subjects. I have read somewhere that this branch is a twin brother of mechanical engineering. But in my opinion this branch has its own significance. Talking about the course and syllabus, the first year has same subjects for every branch and somewhat related to the intermediate classes (class 11th and 12th). In second year it focuses on technical subjects including Strength of Materials, Theory of Machines, Fluid Mechanics, Thermodynamics etc as well as other subjects as Business Communication, Statistical Methods and Numerical Analysis. In third year students gets introduced to managerial and operational subjects which are the basics of this branch. We have learnt Statistical Quality Control, Operation Research, Industrial Engineering, Managerial Economics, etc, along with certain other technical subjects such as Internal Combustion Engine, Heat and Mass Transfer, Metal Cutting, Welding Engineering and so on. The final year comprises of subjects Green Manufacturing, Robotics, Supply Chain Management, Principles of Management, Production Planning and Control etc. which are again technical as well as managerial subjects. The course work is designed so, that it is a blend of technical as well as managerial subjects focusing on technical and managerial skills. The

The syllabus also comprises practicals in which we are taught welding, metal cutting, designing subjects like engineering drawing, machine drawing (drawing on sheets), CAD/CAM, CATIA (designing using computers) and we also have industrial visits to have experience how an industry works. This is all about the industrial and production branch. When we talk for the scope after graduation there are plenty of options. One can go for an MBA in either 'Operations' or 'Strategy' which requires technical skills as well as managerial one, or if they wish they can also change their field from technical to pure managerial opting for MBA in 'Marketing' or 'Finance' etc. One can try for 'Master of Technology' in Industrial and Production or can get admission into PhD. programs directly in any IIMs by appearing in CAT and scoring good marks. Another option is getting into any PSU on the basis of GATE score card. The final option and chosen by most students is campus placements. There are different student clubs, one of which is NEXUS which organizes alumni interaction as well as some webinars which are organized by the department, gives a platform to create connection to grow, develop and get placed. In my four years of under graduation, this place, this branch and of course the faculty members made me who am I and gave me an opportunity to explore myself and choose my field according to my interest. which is NEXUS which organizes alumni interaction as well as some webinars which are organized by the department, gives a platform to create connection to grow, develop and get placed. In my four years of under graduation, this place, this branch and of course the faculty members made me who am I and gave me an opportunity to explore myself and choose my field according to my interest.



Santwana J Singh
Student of 4th Yr,
Dept of IPE

Sustainability

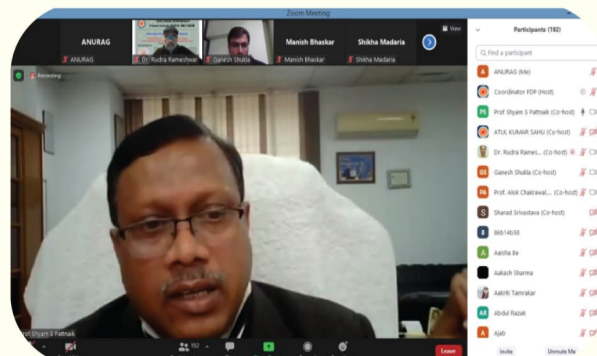
Sustainability! We have heard this term since childhood. They teach sustainability is meeting our own needs without compromising with the needs of future generations. But, are we really evolving sustainably? All the petroleum products we use as fuel today, either coal or petrol/diesel every fuel is going to end up by this century. Consuming these fuels ended up as a major source of green house gases/ pollutions. From some facts and resources it is evident that this world has exploited its resources causing climate change, fuel depletion and many more. But now, keeping all these in mind, an alternative way (which is not new to many) has been introduced. Yes! Hydrogen vehicles, they use hydrogen as its fuel. Hydrogen is present abundantly in environment and can serve a best alternate of fossil fuels and petroleum products. It doesn't produce any harmful waste as well. But hydrogen needs to be extracted as it is not present in free or pure form in the environment. This is the production phase. Then it has to be stored and transported (which is the storage and transportation phase) for the commercial use. The main research going on in this area is to minimize the challenges in both the phases and maximize the output. These could be any challenges starting from production cost to ease of transporting. The research is going on global level for almost four decades. Recently in India Green hydrogen mission has been launched by hon'ble Prime Minister Sir on 15th August, 2021. The day is not far when we will be travelling in cars and vehicles having hydrogen as fuel and saving our environment and resources for the use of future generations.

FDP / Workshop / Seminar Organised

Getting published in a good journal is considered a great accomplishment. As research is given significant importance in all Engineering Departments, Business Schools and Management Departments and Universities, there is enormous pressure for quality publications on Faculties, Professors and Doctoral Research Scholars. Good publication is considered to be the surest tool for getting the desired job and career progression. It definitely helps one in getting international recognition and several people have entered international job/career markets on the basis of their internationally published research. Similarly, for Ph.D./FPM scholars' publication of research paper in reputed journals (SCI/ABDC/ABS/SCOPUS ranked journals) is mandatory for award of Ph.D. degree.

***“Writing Effective and Quality Research Papers,
How to Publish in Scopus, SCI Listed and reputed
Journals?”***

This FDP-Workshop is intended to discuss basic issues and challenges of a research paper which can be published in international journals, quality research paper writing, focusing on these critical areas the FDP-Workshop will enable participants to develop skills for writing a publishable research paper in SCI/ABD-C/ABS/SCOPUS listed journals.



Literature Search and Reference Management

The largest abstract and citation database of peer-reviewed literature, Scopus delivers an overview of the world's research output in the fields of science, technology, medicine, social sciences, and arts and humanities. Content from over 5,000 publishers is easily tracked, analysed and visualised.



Mendeley is a reference manager that allows you manage, read, share, annotate and cite your research papers. Mendeley Reference Manager is a free web and desktop reference management application. It helps you simplify your reference management workflow so you can focus on achieving your goals. With Mendeley Reference Manager you can: Store, organize and search all your references from just one library.

MoU Signed with Industries



School of studies of Engineering and technology, GGV Bilaspur has signed MoU with various industries to enrich the students with practical knowledge before they venture out after their graduation. This MoU was organized by Industry Institute Interaction Cell (III Cell) of SoS Engineering and Technology, GGV Bilaspur. The following companies have an active MoU with the department of Industrial and Production Engineering and also with the other six departments of School of Engineering and Technology:

1. Bharat Sanchar Nigam Limited, Bilaspur (Active Since Nov. 2021)
2. Jhajharia Nirman Limited, Bilaspur (Active Since Nov. 2021)
3. Ziroh Labs Pvt. Limited, Bangalore (Active Since Nov. 2021)
4. CIPET: IPT, Raipur (Active Since Dec. 2021)
5. MSME Technology Centre, Durg (Active Since Dec. 2021)
6. A2 Environment Consultant, Raipur (Active Since Dec. 2021)
7. PWD National Highway Division, Bilaspur (Active Since Dec. 2021)
8. B. Incube Incubation Centre, Bilaspur (Active Since Dec. 2021)
9. Smart Bridge Educational Systems Pvt. Ltd., Hyderabad (Active Since Dec. 2021)

सीयू ने छात्रों में तकनीकी कुशलता बढ़ाने बेंगलूर से किया एमओयू

बिलासपुर। गुरु घासीदास सेंट्रल यूनिवर्सिटी में कुलपति प्रो. आलोक चक्रवाल द्वारा सहयोग, समझौता को प्राथमिकता दिया जा रहा है जिसके चलते विदेशी यूनिवर्सिटी, बहुराष्ट्रीय कंपनियां एवं सरकारी विभाग सभी अब सेंट्रल यूनिवर्सिटी की ओर अग्रसर हैं। यूनिवर्सिटी कई संस्थानों, कंपनियों के साथ एमओयू की ओर तेजी से बढ़ रहा है। अभियांत्रिकी एवं प्रौद्योगिकी विद्यापीठ के उद्योग संस्थान संपर्क प्रकोष्ठ आईआईआईसी ने छात्रों में तकनीकी कुशलता बढ़ाने के लिए तीन प्रतिष्ठित कंपनियों भारत संचार निगम लिमिटेड बिलासपुर, झाझरिया निर्माण लिमिटेड बिलासपुर एवं जीरोह लैब प्राइवेट लिमिटेड बेंगलूर के साथ एमओयू किया है।

सीयू ने 6 संस्थानों से किया एमओयू, इनोवेशन और नए प्रयोगों का मिलेगा छात्रों को लाभ

सिटी रिपोर्टर / बिलासपुर

गुरु घासीदास केंद्रीय विश्वविद्यालय के छात्रों को इन्वेंटशन, एक्सचेंज प्रोग्राम, प्रयोग के लिए बड़ा प्लेटफॉर्म मिला है। केंद्रीय विश्वविद्यालय ने 6 संस्थानों के साथ एमओयू किया है। इसके पहले भी केंद्रीय विश्वविद्यालय 6 से अधिक एमओयू कर चुका है। मुख्य को प्रारंभिक भवन के संपादन में हुए कार्यक्रम में यह एमओयू किया गया। 6 संस्थानों के साथ एमओयू होने से सीयू के छात्र-छात्राओं को अन्य स्थानों में जाकर नया सीखने को मिलेगा। अन्य संस्थानों में उच्च कोटि के अनुसंधान के भी कोर्स के सिस्तेम को उन्नत बनाया जा सकेगा। प्रयोगों के लिए भी संपादन बॉरो। कार्यक्रम की अध्यक्षता कर रहे केंद्रीय विश्वविद्यालय के कुलपति प्रो. आलोक चक्रवाल ने इस मौके पर

इन संस्थानों ने समझौते पर किए हस्ताक्षर

1. सोफ्ट- आईपीटी रायपुर- डा. विशाल वर्मा प्रबंधक मैकेनिकल व अशोक कुमार शर्मा तकनीकी अधिकारी।
2. मैकेनिकल एक्सचेंज प्रोग्राम टेकनॉलॉजी सेंटर दुर्ग- आरके तोडकर उप महाप्रबंधक, जेके मोहंती वीरिष्ठ प्रबंधक प्रशिक्षण व अभिनव दास प्रबंधक।
3. ए 2 एनवायरमेंट रायपुर- अमित खरे निदेशक व इंजीनियर, सतीश यादव प्रोजेक्ट इंजीनियर।
4. पीडब्ल्यूटी नेशनल हावसे डिजिटल बिलासपुर- ममता पटेल एक्जीक्यूटिव इंजीनियर।
5. बी-इनक्यू इन्क्यूबेशन सेंटर बिलासपुर- परीतोग गोवल सीईओ व विष्णु केशव दिवेदी प्रमुख अपरेटर।
6. स्मार्ट बिज एक्जेशनल सिस्टम प्राइवेट लिमिटेड हैदराबाद- नरसिन्हा मारेप्पल्ली वीरिष्ठ प्रबंधक व जयप्रकाश नेहा प्रोग्राम मैनेजर हैदराबाद।

वहा कि एक सजा व जागरूक को का जवाब देकर उसे संतुष्ट करने का प्रयास करें।

विमोदर शिखर विद्यापी के प्रमुख को का जवाब देकर उसे संतुष्ट करने का प्रयास करें।

छात्र ल सकग प्राशक्षण आर प्लेसमेंट में मिलेगी सहायता

बिलासपुर। सेंट्रल यूनिवर्सिटी ने 4 एमओयू कुलपति प्रो. आलोक चक्रवाल के निर्देशन में किया। अभियांत्रिकी एवं प्रौद्योगिकी विद्यापीठ के उद्योग संस्थान संपर्क प्रकोष्ठ (आईआईआईसी) ने छात्रों में तकनीकी कुशलता बढ़ाने के लिए 3 कंपनी बीएसएनएल बिलासपुर, झाझरिया निर्माण लिमिटेड बिलासपुर व जीरोह लैब प्राइवेट लिमिटेड बेंगलूर के साथ एमओयू किया। बीएसएनएल के सहायक महाप्रबंधक निर्मल खूटे, झाझरिया निर्माण लिमिटेड के महाप्रबंधक एबी मैथ्यू ने करार पत्र पर हस्ताक्षर किए। ऑटोएप्स इंजीनियरिंग पुणे के मुख्य कार्यकारी अधिकारी प्रभाकर चौरसिया, जीरोह लैब प्राइवेट लिमिटेड बेंगलूर की सह-संस्थापक सुरभि दास व सेल्स विभाग के सह निदेशक सुमुख राव ने ऑनलाइन एमओयू किया। केंद्रीय स्थानन प्रकोष्ठ और सॉफ्टवेयर कंपनी इंटरबिज कंसल्टिंग यूएसए, रायपुर के बीच कुलसचिव प्रो. शैलेन्द्र कुमार व रायपुर के इंटरबिज कंसल्टिंग यूएसए, प्रबंध निदेशक दीपक लिखमानिया ने हस्ताक्षर किए। केंद्रीय स्थानन प्रकोष्ठ के नोडल अधिकारी प्रो. हरिश कुमार व प्रशिक्षण एवं स्थानन अधिकारी प्रेमनाथ कमलेश भी उपस्थित रहे। छात्रों को अतिरिक्त कोसेटर व सीधे कार्यकाश में

SAARTHY-Carrier Guidance

Department of industrial and production engineering started it's own carrier guidance series for it's students named - Saarthi. In this sessions, various alumni of IPE department form various industry sectors give their valuable guidance to the students of SoSET. The aim of the event was to educate students about various career opportunities and provide them insights for competitive examination preparation.

Our Speakers

1. Sheetabh Bajpai

Management
Consultant at
Accenture

2. Chandra Prakash

Asst. Professor
Great Lake Institute of
Management

3. Akash Bhuwal

Phd from university
of Nottingham

3. Divya Tanu

Line Manager,
Gillette, P&G

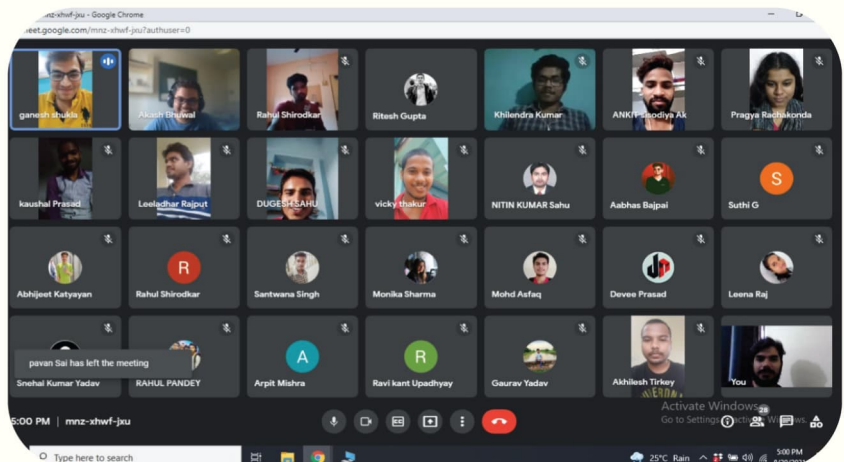
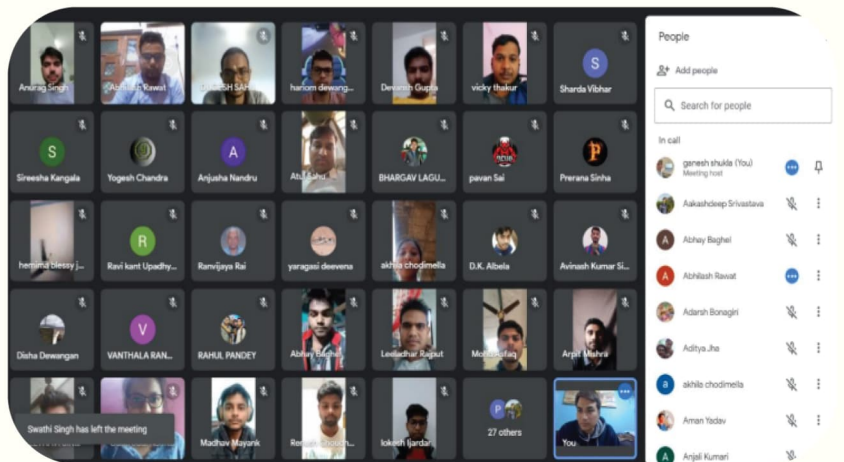
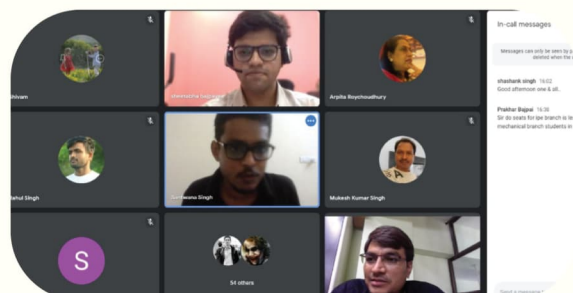
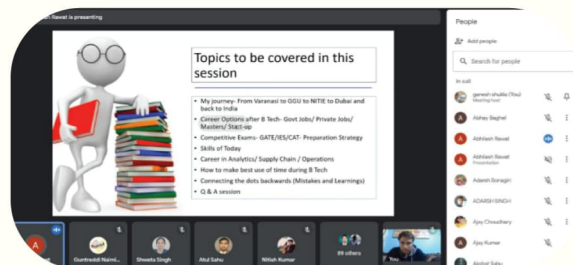
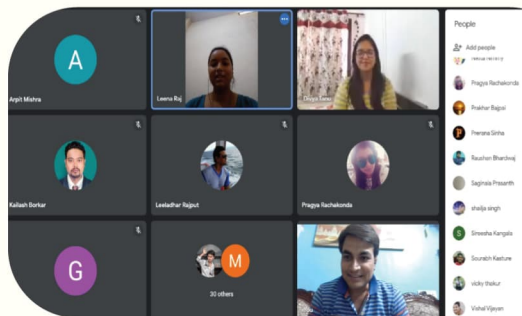
4. Abhilash Rawat

Lead of Inventory
Planning & Control
Flipkart

6. Advait Anand

Product Manager at
Convertcart

Glimpse of Saarthi



DEPARTMENTAL ACTIVITIES



INDUSTRIAL VISIT IV SEM



Glimpse at Narmada Drinks..

To get practical knowledge and to give an insight about the way things work in the real-life scenario, the Industry Institute Interaction Cell of SoS, Engineering and Technology and Department of Industrial & Production Engineering, GGV (Central University) has jointly organized one

day Industrial visit for B.Tech IV Sem Industrial and Production Engineering Students on 04.04.2022 at Narmada Drinks Private Limited. The General Manager, Mr. S. P. Chauhan has provided permission for this visit. Moreover, during the visit, the following faculty members of department of Industrial and Production Engineering were accompanied.

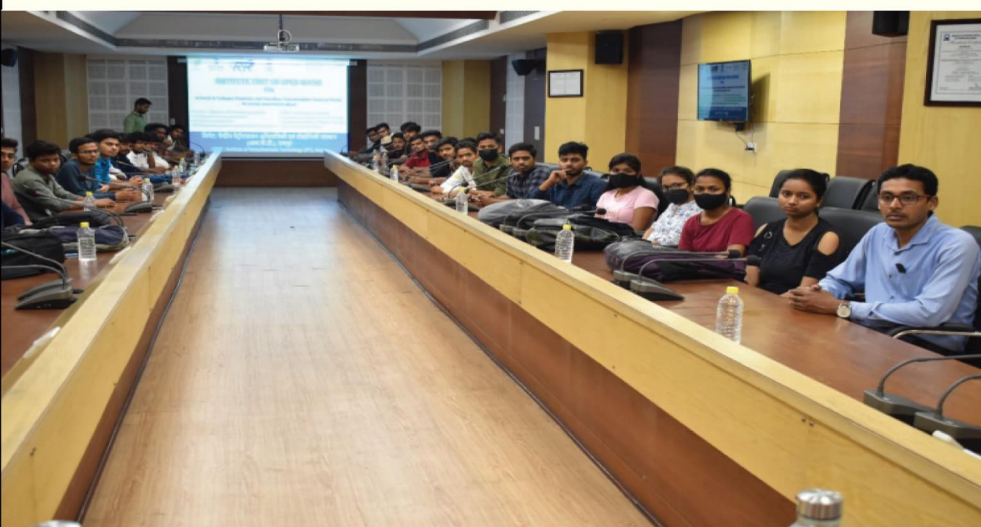
- 1) Mrs. Arpita Roy Chowdhary (IPE Department)
- 2) Mr. Kawal Lal Kurrey (IPE Department)
- 3) Mr. Kailash Kumar Borkar (IPE Department)

Students have interacted with the engineers & staff of Narmada Drinks Pvt. Limited, they have explained the detailed operational activities of the industry to young students. After visiting the entire plant, the students reached to GGV Campus at near about 2.00 PM. Department of Industrial and Production Engineering extend warm thanks to HVC Sir, Registrar Sir and administration of GGV for their support and motivation.

Some of the snapshots of the industrial visit are above.



VISIT VI SEM INDUSTRIAL



Sight at CIPET...

Industry Institute Interaction Cell of SoS, Engineering and Technology and Department of Industrial & Production Engineering, GGV (A Central University) jointly organized one day Industrial visit for B. Tech VI Sem Industrial and Production Engineering students on 07.04.2022 at Central Institute of

Petrochemicals Engineering & Technology (CIPET):

During the visit, the following faculty members of the Department of Industrial and Production Engineering accompanied the students for guidance and support during the visit.

- 1) Mrs. Disha Dewangan (Assistant Professor - IPE Department)
- 2) Mr. Anurag Singh (Assistant Professor - IPE Department)
- 3) Mr. Somnath Singroul (Assistant Professor - IPE Department)

Mr. B. P. Patro, Director & Head CIPET-IPT Raipur interacted with the faculty members after reaching

to the center and discussed the possible collaboration in future with the IPE department and with the students. Mr. Vishal Verma, Vice Principal CIPET-IPT Raipur briefly explained about the center and facilities available in the center to the students. The students then visited the four main departments of the CIPET-IPT Raipur i.e. Design (CAD-CAM), Tool Room, Processing and Testing. In each department well-trained staff briefly elaborated the machines and facilities available in each department. They also gave some hands-on experience to the students. Some of the snapshots of the industrial visit are above.

Research

S.No	Name of the Author/s	Title of Paper	Name of Journal	Year
1.)	Atul kumar Sahu	Post-COVID-19 strategic sourcing decisions for escorting stakeholders' expectations and supplier performance in construction project works	Journal of Global Operations and Strategic Sourcing; ISSN 2398-5364	2022
2.)	Atul kumar Sahu	Decision-making framework for supplier selection using an integrated MCDM approach in a lean-agile-resilient-green environment: evidence from Indian automotive sector	The TQM Journal; ISSN: 1754-2731	2022
3.)	Leeladhar Rajput	Structural analyses of nano-stitched composite laminates based on FSDT using finite element approach	Mechanics of Materials; ISSN: 2214-7853	2021
4.)	Leeladhar Rajput	Numerical study of microstructural fatigue crack growth using damage mechanics	Materials Today Proceedings; ISSN: 2214-7853	2021
5.)	Atul Kumar Sahu	Modeling the predictive values of ultimate tensile strength in welded joint by response surface methodology	Materials Today; ISSN: 2214-7853	2021
6.)	Atul Kumar Sahu	A novel integrated computational TRF R approach with grey relational analysis toward parametric evaluation of weld bead geometry of ms-grade: IS 2062 welded joint by response surface methodology	Grey system theory and applications; ISSN: 2043-9377	2021
7.)	Atul Kumar Sahu	Modeling barriers of digital manufacturing in a circular economy for enhancing sustainability	International Journal of Productivity and Performance Management; ISSN: 1741-0401	2021
8.)	Anurag Singh	Efficient solar drying techniques: a review	Efficient solar drying techniques: a review	2021
9.)	Ganesh Prasad Shukla	A conceptual four-stage maturity model of a firm's green manufacturing technology alternatives and performance measures	Journal of Manufacturing Technology Management; ISSN: 1741-038X	2021
10.)	Ganesh Prasad Shukla	A four-stage maturity model of green manufacturing orientation with an illustrative case study	Sustainable Production and Consumption; ISSN: 2352-5509	2021

11.)	Ganesh Prasad Shukla	A maturity stage model to explore repercussions of green manufacturing for manufacturing strategy decision areas	Management Research Review; ISSN: 2040-8269	2021
12.)	Arpita Roychoudhury	Design and Development of Microwave System for welding of Materials	International Journal of Mechanical and Production Engineering Research and Development(IJMPERD); ISSN: 2249-6890	2020
13.)	Nitin Kumar Sahu	Exploitation of the advanced manufacturing machine tool evaluation model under objective-grey information: a knowledge-based cluster with the grey relational analysis approach	Grey Systems: Theory and Application; ISSN: 2043-9377	2020
14.)	Nitin Kumar Sahu	A Review on the Research Growth of Industry 4.0: IIoT Business Architectures Benchmarking	International Journal of Business Analytics; ISSN: 2334-4547	2020
15.)	Atul Kumar Sahu	Evaluation of machine tool substitute under data-driven quality management system: a hybrid decision-making approach	The TQM Journal; ISSN: 1754-2731	2020
16.)	Nitin Kumar Sahu	Evaluation of machine tool substitute under data-driven quality management system: a hybrid decision-making approach	The TQM Journal; ISSN: 1754-2731	2020

Patents

S.No	Title of Invention	Date	Innovation Patent Grant by	Patent Number	Name of Inventor
1.)	Method and Apparatus for Air Filtration for Exhaust Silencer of a Vehicle	2021	Australian Government/ IP Australia	2021102315	Sharad Chandra Srivastava
2.)	Home Automation Based on user Detection using Internet of Things	2021	Australian Government/ IP Australia	2021100439	Sharad Chandra Srivastava
3.)	Longitudinal Fins Evacuated Tube Solar Air Heater	2021	Australian Government/ IP Australia	2021100087	Anurag Singh

Book Chapters

S.No	Name of the Teacher	Title of the book chapter published	Book Name	ISBN/ISSN number of the proceeding	Name of the publisher
1.)	Atul Kumar Sahu & Nitin Kumar Sahu	Fuzziness: A Mathematical Tool	Theoretical and Practical Advancements for Fuzzy System Integration	9781522518488	IGI Global
2.)	Atul Kumar Sahu & Nitin Kumar Sahu	Fuzzy-AHP: A Boon in 3PL Decision Making Process	Theoretical and Practical Advancements for Fuzzy System Integration	9781522518488	IGI Global
3.)	Atul Kumar Sahu & Nitin Kumar Sahu	Performance Estimation of Firms by GLA Supply Chain under Imperfect Data	Theoretical and Practical Advancements for Fuzzy System Integration	9781522518488	IGI Global
4.)	Atul Kumar Sahu & Nitin Kumar Sahu	Benchmarking of Advanced Manufacturing Machines Based on Fuzzy-TOPSIS Method	Theoretical and Practical Advancements for Fuzzy System Integration	9781522518488	IGI Global
5.)	Atul Kumar Sahu & Nitin Kumar Sahu	Appraise the Economic Values of Logistic Handling System under Mixed Information	Theoretical and Practical Advancements for Fuzzy System Integration	9781522518488	IGI Global
6.)	Leeladhar Rajput	NexGen Technologies for Mining and Fuel Industries (Volume I & II)	A study on finding optimal ANN model for rock mass classification	9789385926402	Allied Publishers Pvt. Ltd.
7.)	Atul Kumar Sahu & Nitin Kumar Sahu	Agile Supplier Assessment Using Generalized Interval-Valued Trapezoidal Fuzzy Numbers	Technological Innovations in Knowledge Management and Decision Support	9789385926402	IGI Global

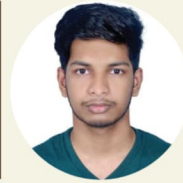
Guest Lectures

S.No	Title	Faculty	Venue	Date
1.)	"Green Manufacturing Strategy & Sustainable Manufacturing"	Dr. Ganesh Prasad Shukla	Department of Mechanical Engineering, Chouksey College of Engineering, Bilaspur.	7/01/2022
2.)	"Human Values and Its Importance"	Dr. Ganesh Prasad Shukla	Department of Computer Science and Engineering, Oriental Institute of Science and Technology, Bhopal	15/01/2022
3.)	"Advancement in Manufacturing Technology"	Dr. Ganesh Prasad Shukla	School of Studies of Engineering and Technology, Guru Ghasidas Vishwavidyalaya, Bilaspur.	17/01/2022 to 21/01/2022
4.)	"Implementation of Outcome Based Curriculum for Diploma Engineering"	Dr. Ganesh Prasad Shukla	AICTE- CSVTU MoU Joint Teachers Training Program -2021 organized by Chhattisgarh Swami Vivekanand Technical University, Bhilai, C.G.	13/02/2022 to 18/02/2022
5.)	"Fundamentals of Green Manufacturing and Its Importance"	Dr. Ganesh Prasad Shukla	Department of Mechanical Engineering, Parul Institute of Engineering and Technology, Vadodara.	4/03/2022
6.)	"RESEARCH METHODOLOGY" (RM-2021)"	Dr. Ganesh Prasad Shukla	AICTE- CSVTU MoU Joint Teachers Training Program -2021 organized by Chhattisgarh Swami Vivekanand Technical University, Bhilai, C.G.	21/03/2022 to 26/03/2022

Placements



Santwana j singh
Outsized



Lokesh Ijardar
Aloha Technologies



Abhijeet Katyayan
HighTech Next



Akhilesh Tirkey
HighTech Next



Shivam
HighTech Next



Anuj Singh
HighTech Next

Academic Achievement

**Certified by
Dassault System**



Rahul Shirodkar
Certified Solidworks
Professional and
qualified for solidworks
Expert exam

CAT-2022



Santwana j singh

Got call from IIM
kashipur



Pragya Rachakonda

Got call from IIM
kashipur, Kozhikode
(for integrated phd
course)

Special Achievements



Providing education has become a source of earning a hefty amount of money. This way many talented and potential middle-class students and students from weaker section doesn't get a chance. And those who can't afford expensive courses, we help them prepare for their exam in the most affordable way possible. PrepNlearn came with completely new and innovative solutions for schools and coaching institutes. We work with them and provides all tech + business support to stand out. PrepNlearn is committed to providing IT cum ACADEMIC AND MANAGEMENT Solutions to the best possible Hybrid learning solution to coaching and school.



A simple fact that randomly clicked on my mind and I found it intriguing that we take some very precious things for granted and the first thing that come in my mind is - Mother Nature and what we doing to preserve it "Nothing" .So I thought of starting Grooters India, a Start-up whose sole purpose of existence lies in the simple fact that, " Our future holds NATURE & technology ".At Grooters India we work together in order to make this statement come true.



SHE-Struggle Hussle Endavour

During the outbreak of covid 19, in lockdown, I was getting bored and I thought to express my views in the form of a story. Then I decided to write a book which resulted in "SHE: STRUGGLE | HUSTLE | ENDEAVOUR". This is a fictional story created in the form of an anthology inspired by many true events. This book is my debut book which deals with the life of women and the situation they faced with a strong will. It is about the ups and downs of life and finding a purpose to live. This story won't solve one's problems but I assure that this book will give courage to face anything in life. With this concept I had written the book and published it online on kindle during the lockdown but now it has officially published in paperback format which is easily available in online stores such as Amazon. "SHE; STRUGGLE | HUSTLE | ENDEAVOUR" by Sripragya Rachakonda.





Swachchhta Pakhwara

The main focus of SwachchhtaPakhwara 2021 gives emphasis on the issues and practices of Swachhhta by engaging GOI Ministries/Departments in their jurisdictions. The first program under swachchhta pakhwara 2021 was Swachchhta pledge conducted on September 1st via online mode. The second program was department level cleaning drive on September 2nd through offline mode. The third program was Poster, Slogan and speech competition on September 3rd through online mode. The fourth program Best out of Waste activity on September 7th via online mode.

Vishwakarma Puja

Department of Industrial & Production Engineering, under the aegis of Guru Ghasidas Vishwavidyalaya, celebrated the day of Lord Vishwakarma by conducting 'Vishwakarma Puja' on 17th September with full zeal and enthusiasm. Vishwakarma Day is celebrated to worship Vishwakarma. Vishwakarma is known to be the divine engineer since the Puranic age. As a mark of reverence he is worshipped not only by the engineering and architectural community, but also by other professionals. Artisans, craftsmen, mechanics, smiths, welders, industrial workers, factory workers, and workers of all kinds worship Lord Vishwakarma on this day and pray for a better future, safe working conditions and above all success in their respective fields.



Key People & Contributor

Faculty Co-ordinators



**Dr. Ganesh P
Shukla**

Asst. Professor



**Mr. Anurag
Singh**

Asst. Professor



**Mr. Kawal
Kurrey**

Asst. Professor



**Mr. Leeladhar
Rajput**

Asst. Professor

Student Co-ordinating Team



**Student
Co-ordinator**

Vicky Thakur



**Design
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Hariom Dewangan



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Umang Verma

Published by-

**Department of
Industrial & Production Engineering**



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