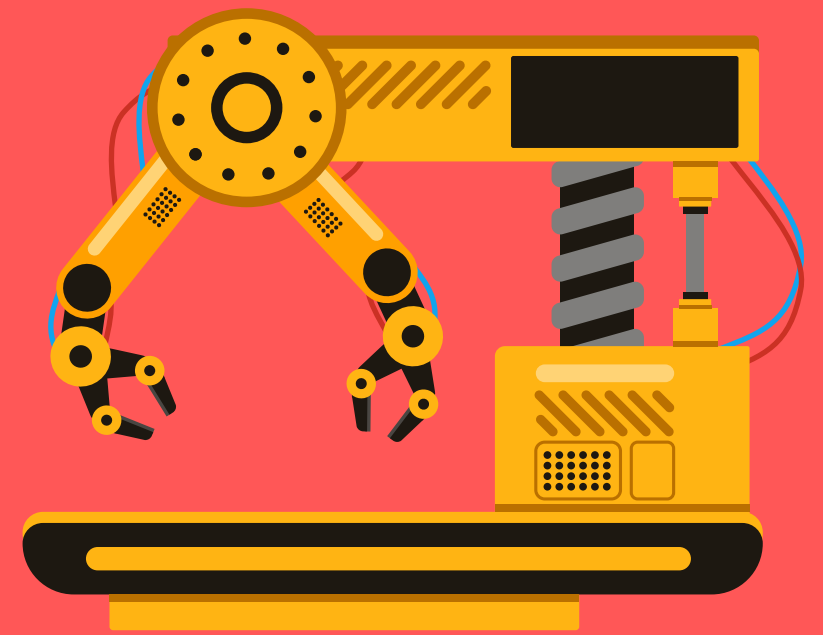
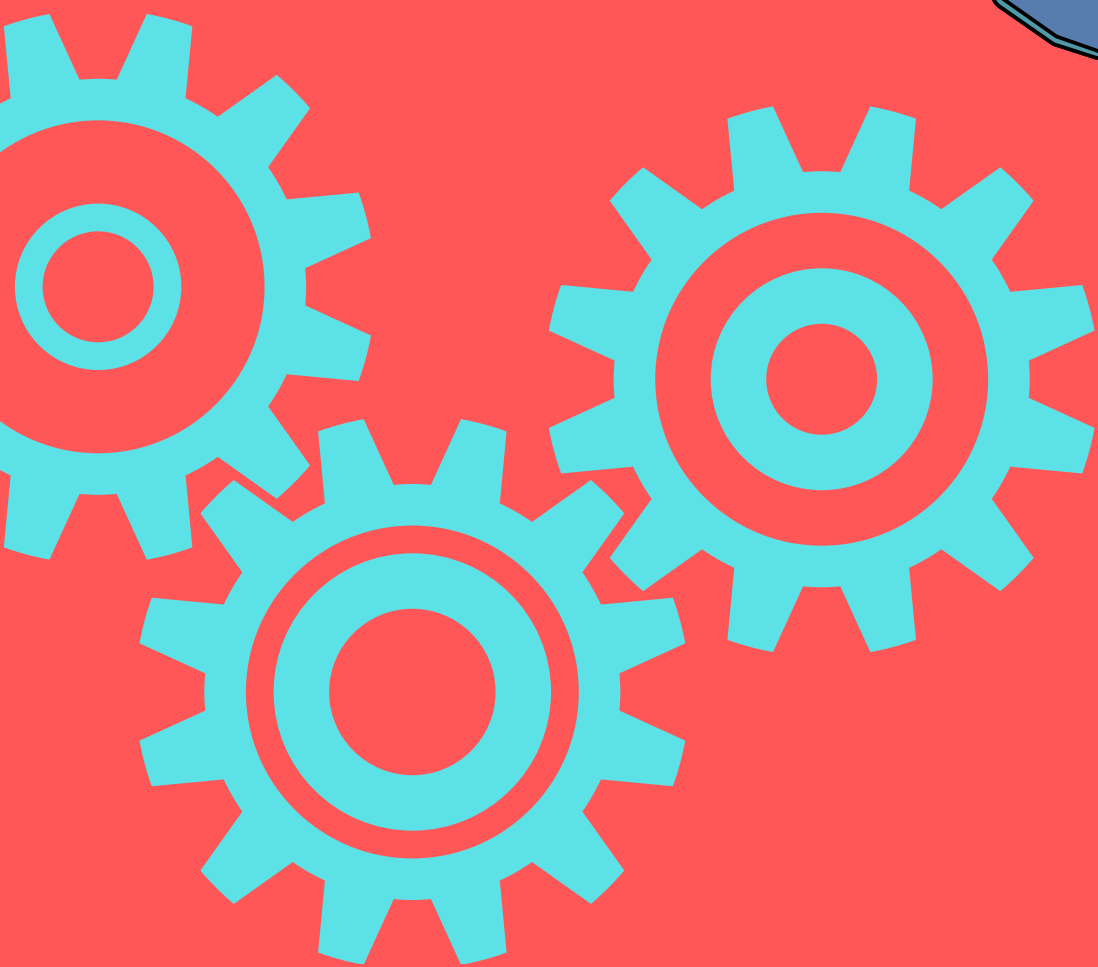
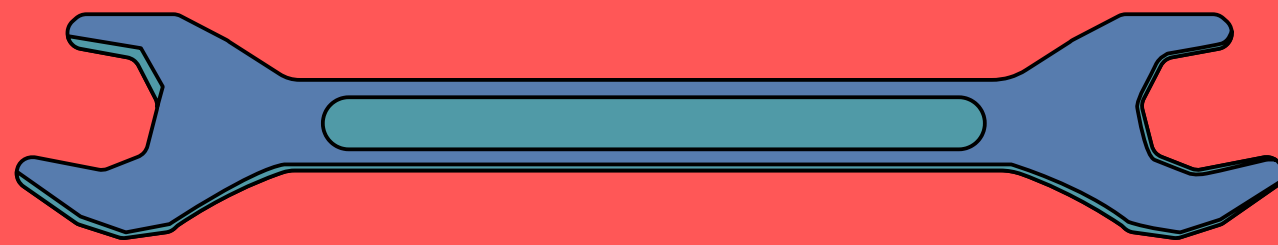


MEERUT INSTITUTE OF ENGINEERING & TECHNOLOGY



DEPARTMENT OF MECHANICAL
ENGINEERING





MESSAGE FROM EDITOR

This e-magazine is a quarterly magazine published by the department of Mechanical Engineering, MIET, Meerut. This edition includes research papers & other articles from the faculty members based on the latest technological advancement. Additionally, the magazine also provides space for various technical & cultural activities organized by the department during past three months.

Hope this magazine provides all the relevant information & encouragement to the readers.

Ms. Khushboo Sharma
Assistant Professor
MED, MIET



EDITORIAL TEAM

VANSHIKA BHADOURIA (IV YEAR)

NAVNEET (IV YEAR)

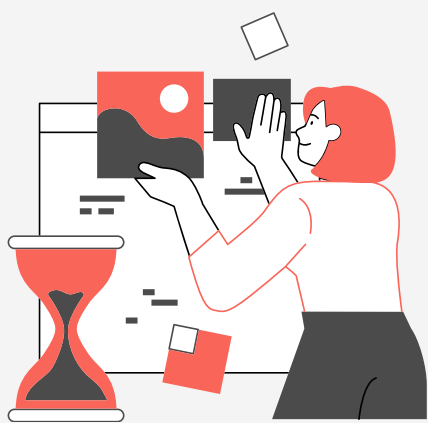
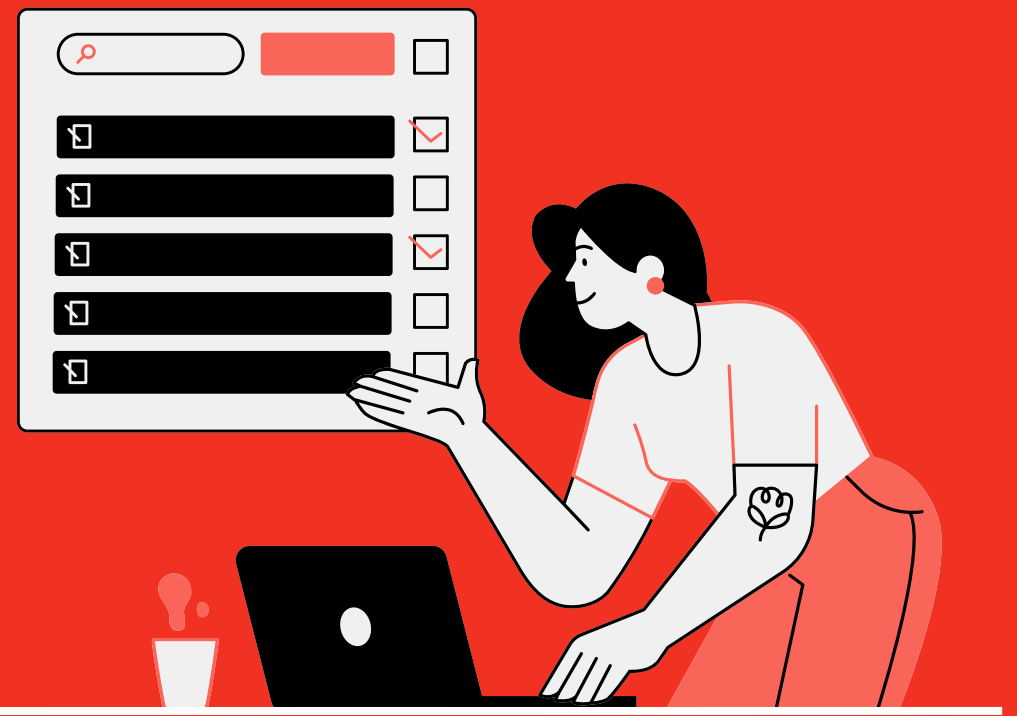
ARPAN GOYAL (II YEAR)

ABHISHEK (II YEAR)



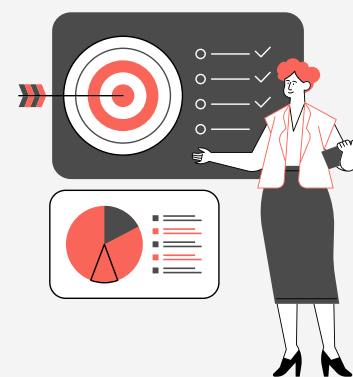
Killer Tips: Develop Effective Habits

Ms. Khushboo Sharma



START SMALL AND BE CONSISTENT

Consistency is key, commit to practicing the habit daily to reinforce its development.



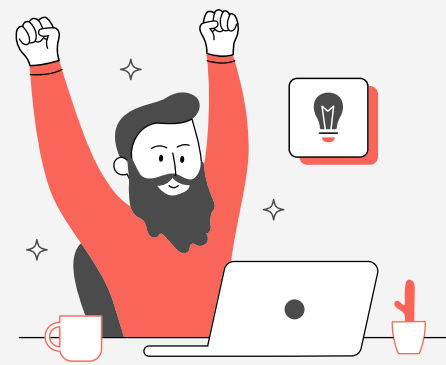
SET CLEAR AND SPECIFIC GOALS

Make your goals measurable, achievable, and relevant to keep yourself motivated.



TRACK YOUR PROGRESS

Keep a habit tracker or journal to monitor your daily adherence to the habit.



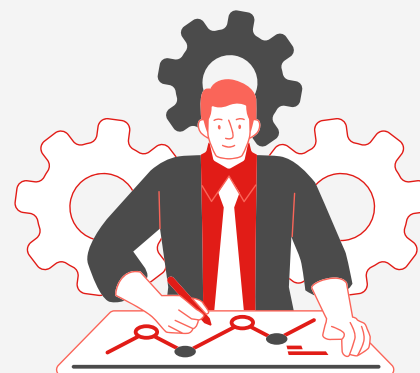
USE POSITIVE REINFORCEMENT

Celebrate small wins and reward yourself for sticking to the habit. Positive reinforcement encourages continued behavior.



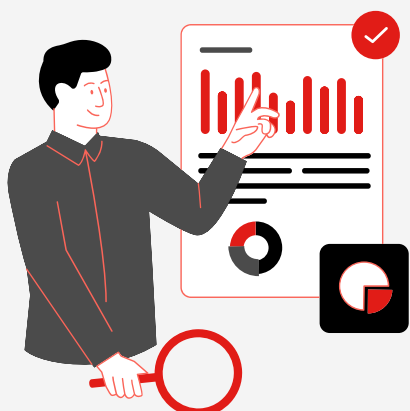
BUILD A SUPPORT SYSTEM

Share your habit-building journey with friends or family who can encourage and support you.



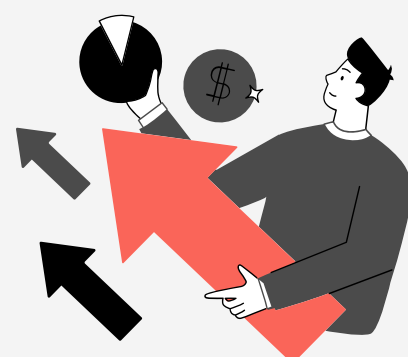
FOCUS ON THE WHY

Understand the reasons behind developing the habit and its positive impact on your life.



LEARN FROM SETBACKS

Accept that setbacks are a part of the habit-building process. Analyze the reasons for setbacks and use them as opportunities to improve.



REVIEW AND ADJUST

Visualize yourself performing the habit effortlessly and achieving your goals.



IMPLEMENT HABIT STACKING

Attach the new habit to an existing one that is already well-established. This way, you build on an existing routine to develop new habits seamlessly.



VISUALIZE SUCCESS

Regularly review your habit-building journey and assess the effectiveness of the habit.

Step Aside Predictive Maintenance, It's An Era Of Predictive Resolution!

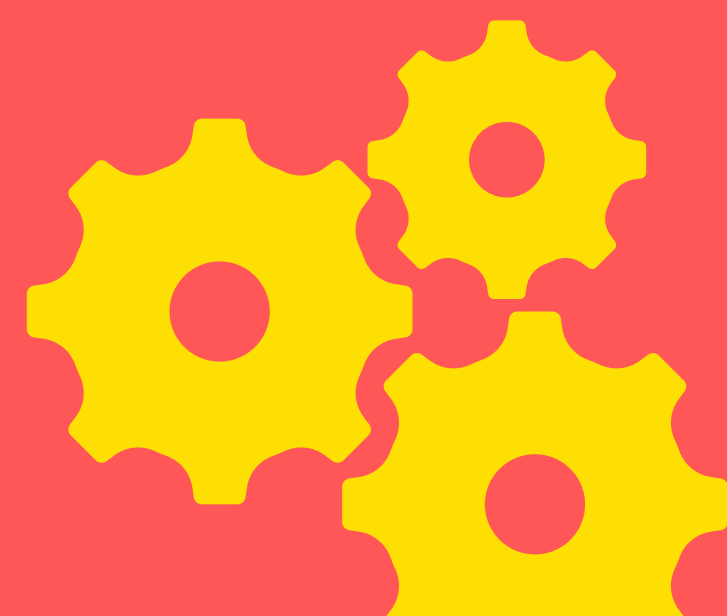


It's 2024 – a thrilling world of manufacturing where innovation knows no bounds! The buzzword on everyone's lips these days is "predictive resolution" and it's reshaping the way we approach maintenance in the coming year and beyond. Once upon a time, predictive maintenance (predictive resolution's predecessor) was about spotting equipment irregularities and understanding their causes. However, now, because of predictive resolution, it's not just about identifying issues; it's about empowering technicians with precise solutions to fix them. How, you ask?

Well, according to Next Move Strategy Consulting, it is predicted that the global predictive market is set to explode by 2030. Its humble beginning at a valuation of \$4.5 billion in 2020 is all set to hit the mark of a whopping \$64.3 billion by 2030. This signals a growing adoption of predictive analytics and similar technologies in the manufacturing space. Manufacturers have yearned for years for predictive resolution but data challenges have held them back.

Now, thanks to AI, machine learning and NLP, manufacturers can turn mountains of unstructured data – from Word files to PDFs – into actionable predictive insights. Brace yourself for a manufacturing revolution that boasts increased efficiency, reduced costs and a stellar predictive ability, thanks to predictive resolution!

TechDogs Takeaway: In the fast-paced manufacturing world, embracing predictive resolution is no longer a luxury but a necessity. Modern businesses should leverage it to address challenges, including the need to reduce downtime, extend equipment lifespans and ensure customer satisfaction. Manufacturers should integrate predictive resolution with the Industrial Internet of Things (IIoT) to predict before issues lead to costly disruptions. This would help them with smoother operations, reduced downtimes and enhanced customer satisfaction. Besides, manufacturers must also leverage the power of predictive resolution to improve data analytics and real-time monitoring to drive truly transformative change!



Sustainability And Tech Will Go Hand In Hand As Clean Technology

In 2024, sustainability is no longer just a buzzword; it's a vital focus for businesses, particularly in the manufacturing sector. This trend of sustainability is driven by a combination of factors, including government, municipal and institutional contracts' sustainability requirements, as well as the increasing demand for environmental, social and governance (ESG) compliance from commercial customers.

A recent report from the 2023 US Environmental Protection Agency reveals that the manufacturing and raw materials sectors are accountable for a significant 23% of greenhouse gas emissions in the United States. A 2022 study by Climate Impact Partners underscored the significance of sustainability in business, reporting that 42% of Fortune Global 500 companies have either achieved substantial climate milestones or have pledged to do so by 2030. Moreover, 80% of consumers said it was a top priority for companies to take responsibility for climate action.

While strides have been made to reduce emissions in the manufacturing industry, considerable progress remains to be achieved. In fact, many brands and manufacturers are evaluating their entire supply chain to identify opportunities for waste reduction (Trends 1), ensure diverse and ethical practices, adoption of fuel-efficient or electric vehicles, etc. within their facilities. With consumers more demanding about sustainable practices, manufacturing businesses will focus on adopting clean tech and eco-friendly practices in 2024.

Mr. Madhur Kr. Dubey
Assistant Professor, MED





Department of Mechanical engineering , MIET in association with BIS Ghaziabad on the ocassion of World standard day organised a youth to youth connect programme to enhance the awareness of the students of MIET about the various standards used in the market.



ICAMMIA 2023



Department of Mechanical engineering , MIET organised International conference on Advancement in materials & manufacturing on 26-27 October 2023. The conference emphasizes innovative technologies developed by advanced materials & manufacturing techniques and their impact on society. The conference includes keynote addresses, invited talks by eminent speakers worldwide, and the oral presentation by researchers. The conference allows professionals from academia and industry to share their ideas and establish multidisciplinary collaboration and aims to explore research knowledge in advanced materials and manufacturing techniques for sustainable environmental development.



ALUMNI TALK



Meerut Institute of Engineering & Technology

Department of Mechanical Engineering



Organizing an

Alumni Talk

On

"Opportunities in higher education at Germany"

By

Mr. Manik Gupta



**Friedrich-Alexander-Universität
Erlangen-Nürnberg Germany**



Date: 1st December 2023

Time: 11:00 AM to 1:30 PM

Venue: Q-101, Tata Block

Department of Mechanical engineering, MIET organised an Alumni talk with Mr. Manik Gupta, an alumni of Department of mechanical engineering, MIET Batch 2015-19. In the session he emphasized the opportunities in higher education in Germany. He also discussed how MIET has helped him securing this opportunity in Germany.





Department of Mechanical engineering , MIET organised a Farewell party for Prof. (Dr.) Y.M Agrawal who gave his services to the institution for 25 years.



**Haier
India
Pvt Ltd**

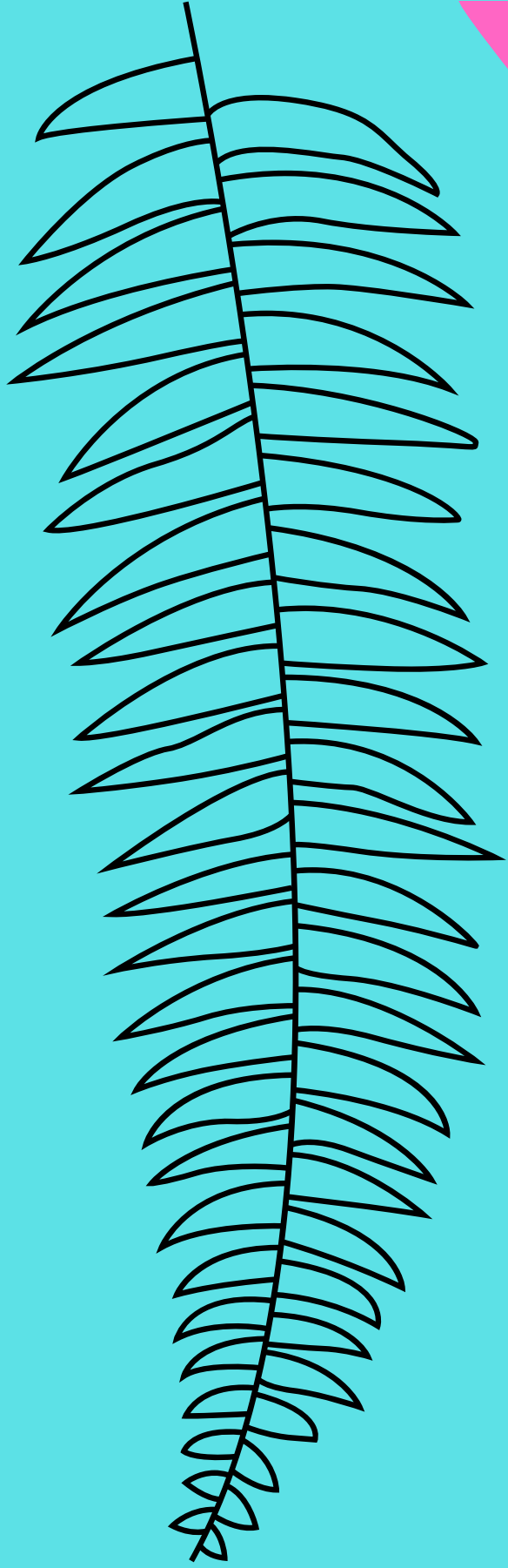


**Students of Department of Mechanical engineering , MIET at Haier India Ltd.,
Greater Noida for an industrial visit**





Department of Mechanical engineering, MIET organised a one day workshop for polytechnic faculties



Students of Department of Mechanical engineering, MIET organised a one day workshop On Drone assembling for polytechnic students at DN Polytechnic Meerut





Students of Department of Mechanical engineering, MIET at Carrier Wheels India Pvt. Ltd., Shamli for an industrial visit



Students of Department of Mechanical engineering, MIET at Continental, Meerut for an industrial visit

इंडस्ट्री 4.0 पर चार दिवसीय प्रशिक्षण कार्यक्रम

ग्रीन इंडिया

मेरठ। एमआईआईटी के मैकेनिकल इंजीनियरिंग विभाग में स्मार्ट मैन्युफैक्चरिंग और इंडस्ट्री 4.0 पर चार दिवसीय प्रशिक्षण कार्यक्रम शुरू किया गया। प्रशिक्षण कार्यक्रम का आयोजन आईआईटी दिल्ली द्वारा एआईए फाउंडेशन फॉर स्मार्ट मैन्युफैक्चरिंग के सहयोग से किया गया।

विभागाध्यक्ष डॉ. शैलेन्द्र त्यागी ने बताया कि प्रशिक्षण कार्यक्रम भारत सरकार के भारी उद्योग मंत्रालय की पहल समर्थ उद्योग भारत 4.0 के तहत आयोजित किया गया है। प्रशिक्षण कार्यक्रम में कंप्यूटर साइंस, इलेक्ट्रॉनिक कम्युनिकेशन इंजीनियरिंग, इलेक्ट्रिकल इंजीनियरिंग, एमसीए और मैकेनिकल इंजीनियरिंग विभागों के 31 छात्रों ने भाग लिया। आईआईटी दिल्ली एआईए



फाउंडेशन फॉर स्मार्ट मैन्युफैक्चरिंग से प्रोग्राम लीड आकाश दुबे, ट्रेनर पुलक रिजवानी और संजीव कुमार ने छात्रों को स्मार्ट मैन्युफैक्चरिंग, इंडस्ट्री 4.0, रोबोटिक मैन्युफैक्चरिंग, साइबर फिजिकल सिस्टम, इंडस्ट्रियल आईओटी, ऑगमेंटेड पर प्रशिक्षण दिया।

वास्तविकता, आभासी वास्तविकता। रियल-टाइम डैशबोर्ड, मशीन लर्निंग आदि तकनीकों के बारे में विस्तार से बताया गया।

वाइस चेयरमैन पुनीत अग्रवाल ने कहा कि एमआईआईटी ने एक दशक पहले नई तकनीक अपनाई थी। हमारे छात्र

उद्योग 4.0 के साथ-साथ नवीनतम तकनीकों को सीखने और अपनाने में हमेशा आगे रहे हैं, जिसके परिणामस्वरूप साल दर साल उत्कृष्ट कॉलेज प्लेसमेंट हुए हैं। निदेशक डॉ. बृजेश सिंह ने कहा की प्रत्येक वर्ष 1 से 1.5 करोड़ लोग रोजगार वर्ग में आ रहे हैं।



Department of Mechanical engineering, MIET in association with IITD - AIA foundation for smart manufacturing organised a 4 day training session on smart manufacturing & industry 4.0 for students of MIET

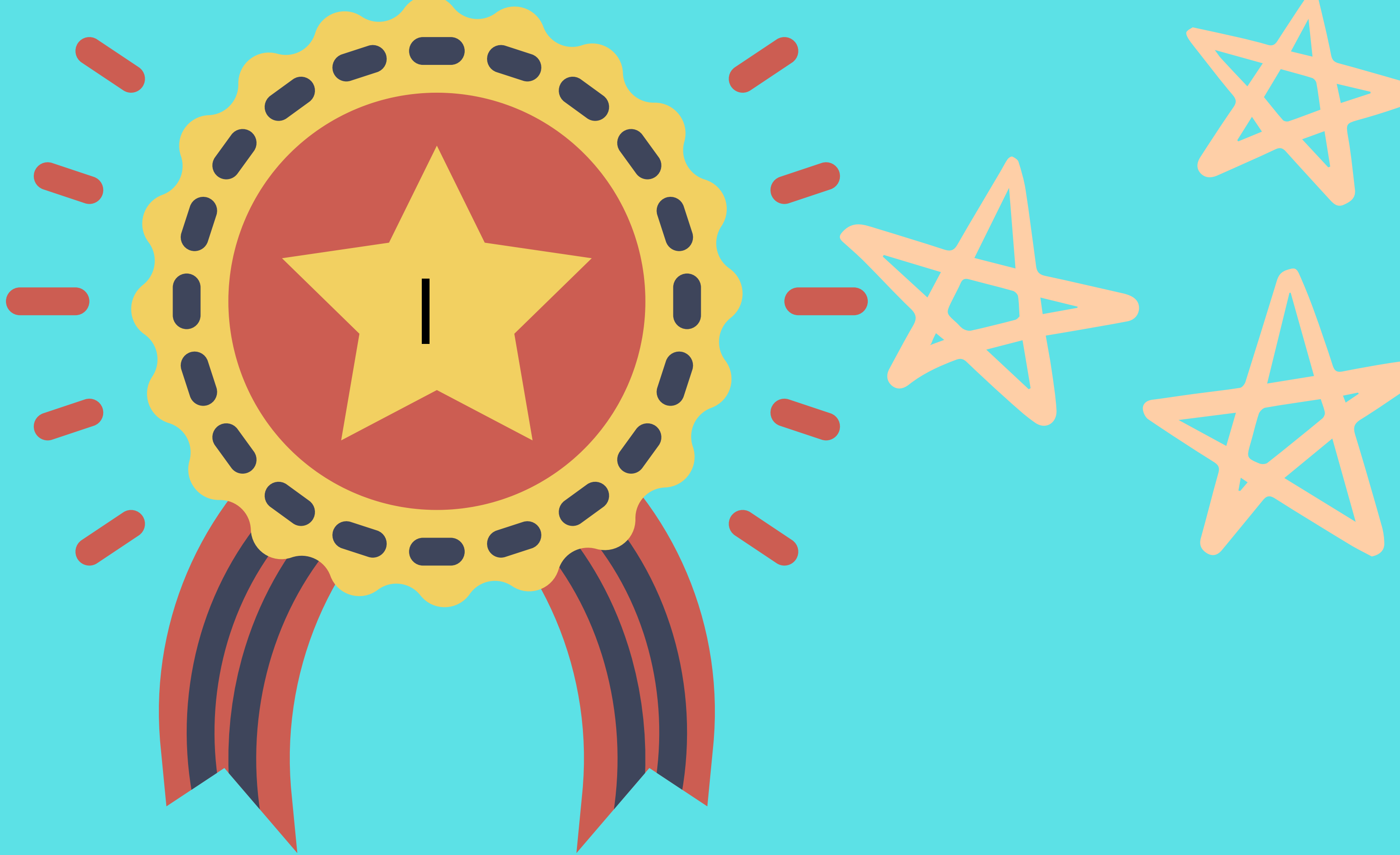


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COMPETITION DATE: 18 OCTOBER 2023
PLACE: GHAZIABAD
POSITION: 3RD
ORGANIZATION: RKGIT GHAZIABAD



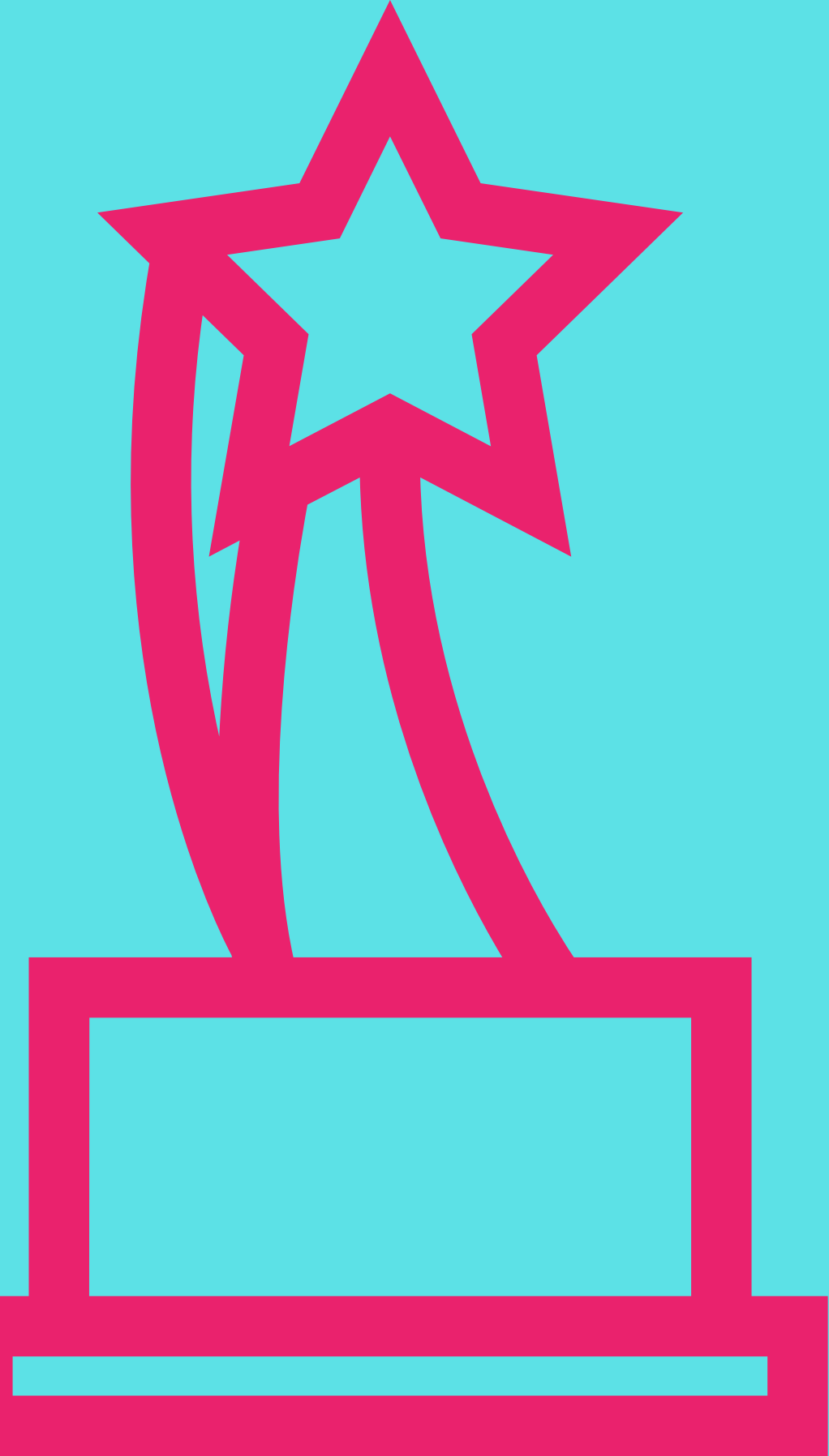
EVENT NAME: 15KG ROBOWAR
DATE: 28 OCTOBER 2023
PLACE: PRAGATI MADAN, DELHI
POSITION: 1ST
ORGANIZATION: INDIA MOBILE CONGRESS





EVENT NAME: 15KG ROBO SUMO
DATE: 31 OCTOBER 2023
PLACE: DELHI
POSITION: 1ST
ORGANIZATION: JAMIA HAMDARD UNIVERSITY





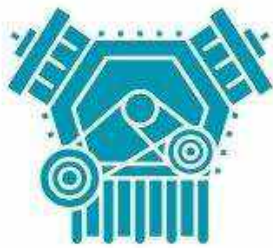
EVENT NAME: 30KG ROBOWAR
DATE: 3-5 NOVEMBER 2023
PLACE: PATNA, IIT CAMPUS
POSITION: 1ST
ORGANIZATION: IIT PATNA



Don't Get Scammed!

9 CRITICAL POINTS

That You Must Check When Buying a Used Car



1

ENGINE

Check the engine's condition and ensure there are no signs of damage or leaks in the engine parts, such as leaking oil or smoke from the exhaust. Also, check the sound of the engine when the car is started and when the car is in motion.



2

SUSPENSION

Check the engine's condition and ensure there are no signs of damage or leaks in the engine parts, such as leaking oil or smoke from the exhaust. Also, check the sound of the engine when the car is started and when the car is in motion.



3

TRANSMISSION

Ensure the transmission works well when shifting gears, especially when the car accelerates. Remember to check the transmission fluid to see any signs of leaks.



4

INTERIOR

Ensure the car's interior is in good condition, especially the seats and dashboard. Also, check the audio system, AC, and other features.



5

ELECTRICAL SYSTEM

The car's electrical system is a part that commonly experiences problems. Ensure all lights and switches work properly, and the battery has enough power.



6

BODY AND PAINT

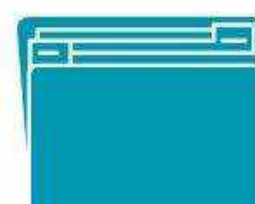
Check the car's body and paint for any damage or suspicious signs of repair. Also, check the smoothness and color of the car's paint to ensure that the car has not been in an accident or altered.



7

COOLING SYSTEM

Make sure the car's cooling system is functioning correctly. For example, check the condition of the radiator and its hoses, and make sure there are no leaks in the cooling system.



8

VEHICLE DOCUMENTS

Check vehicle documents such as the vehicle registration certificate and the car service book. Make sure all necessary documents are available and correct.



The Importance of Mental Health Awareness



01

Mental health awareness involves understanding and recognizing the importance of mental well-being and the impact of mental health on overall quality of life.



02

Mental health awareness helps reduce stigma, promotes empathy, and encourages open conversations about mental health concerns.



03

Increased mental health awareness leads to early recognition and intervention of mental health issues, improving outcomes and preventing further distress.



04

Mental health awareness helps reduce stigma, promotes empathy, and encourages open conversations about mental health concerns.