

Field Visit for Problem Identification

15th September 2023

Institution's Innovation Council (IIC), Ministry of Education (MoE), Dronacharya Group of Institutions, Greater Noida organized a field visit to “**Cosy Toys Factory**” for problem identification on **15th September 2023**. **Faculty member Prof. Sarita Tiwari** along with **45 students** visited the **factory**.

The visit was organized with the objective to give learning and practical exposure of students.

Cosy Toys Factory is the manufacturers, exporters, and distributors of exclusive soft toys in the NCR area. Company always tries to maintain our quality standards to meet the little one's expectations. It is a B2B company, providing materials wholesale to retailers who, in turn, sell the toys to customers. The Unique Selling Proposition (USP) of Cosy Toys is their exclusivity and dedication to customer satisfaction

Dronacharyans were welcomed by company officials **Mr. Jyotish** and **Mr. Kartik**. They gave a small presentation about the company.

After the presentation, student saw the entire manufacturing process of toys, observing how starting with a rough idea, they carve the whole toy into reality according to customer demands. The materials and accessories required vary each time, requiring careful consideration to match customer expectations. As an example, they showed students an octopus made for a corporate client in bulk, with tagging, printing, and packaging exclusively done for the client.

In addition to personalized products, they also deal in pet toys and animal plushies. Their basic idea is to first understand customer needs and then design the product accordingly. The toy's idea is initially designed in 3-D and then translated into 2-D. The next steps involve creating a prototype and then proceeding to the final product.

The design process is the initial step in the manufacturing process, followed by cutting the textile material, stitching according to the design, and finally stuffing the toys. Quality checks are crucial

before packaging, which is done on-site. For most bulk orders, they use vacuum packing to reduce transportation costs.

Logistics and supply processes are also managed by the company, utilizing different vendors they are associated with to provide end-to-end solutions for the customer. Skilled labor is required for these activities, necessitating extensive training and development to ensure the production of quality products efficiently.

In the first two years of the company's startup, they faced challenges due to a lack of awareness about bulk raw material providers, resulting in higher costs compared to competitors. Subsequently, they conducted research and explored the market for more affordable raw materials.

Students also explored all departments of the company. Students were actively asking questions to gain further knowledge about the toy industry and its workings.

Overall, the industrial visit proved fruitful in terms of learning and motivation for the students to become entrepreneurs and explore new avenues for the sustainability and growth of the Indian economy. The Government of India's support to MSMEs for substantial growth adds to the positive outlook.



Link : https://www.instagram.com/p/C5prohTvLQI/?utm_source=ig_web_copy_link

<https://twitter.com/DronacharyaDgi/status/1778670993726120223>

Objective: To make students understand what are problem faced in entrepreneurial journey and to run a startup.

Benefit: Students learnt about the problems faced by startup and how to integrate their learning to find a sustainable solution for them

Problem Solving and Ideation Workshop

18th September 2023

Institution's Innovation Council (IIC), Ministry of Education (MoE) Dronacharya Group of Institutions, Greater Noida organized a workshop on “**Problem Solving and Ideation Workshop**” on **18th September 2023** **Mr. Raghavendra Katti** (Assistant General Manager, Maruti Suzuki R&D) was the speaker of the session. 85 students attended the session.

The aim of the workshop was to elucidate to students the significance of innovation and the process of generating ideas, along with the skills required for problem-solving.

Mr. Raghavendra Katti initiated the session, detailing various steps integral to problem-solving and the process of generating ideas. He also distinguished between successful and unsuccessful entrepreneurs, outlining the reasons behind their outcomes. Moving forward, he encouraged students to thoroughly grasp the nature of a problem before seeking its optimal solution. Furthermore, he elaborated on several effective entrepreneurship practices that students could embrace to improve their capacity for addressing critical challenges. In the end **Mr. Raghavendra Katti** cleared the doubts of the students.



Objective: To explain the significance of innovation and the skills required for problem-solving

Benefits: Students got knowledge how they can enhance their skills for problem solving and find solution to critical problems.

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Workshop on Internet of Things (IoT) using Arduino UNO

(To Drive Innovation for Business)

14th – 15th October, 2023

Institution's Innovation Council, Ministry of Education (MoE), Dronacharya Group of Institutions, Greater Noida organized **“Introductory workshop on Internet of Things (IoT) using Arduino UNO”** on **14th – 15th October, 2023** to stimulate innovation practices in Businesses. The workshop was organized for ECE/EEE and ECZ (Semester 3) students. The resource persons of the workshop are Dr. Kamal Deep (ECE Dept.) and Mr. Chandrabhan (ECE Dept.)

The first session was taken by Dr. Kamal Deep on 14th October, 2023. Dr. Kamal started the session by giving a brief introduction of Internet of Things (IoT) using Arduino UNO. He told the Internet of Things (IoT) is revolutionizing how we interact with technology, enabling everyday objects to communicate and exchange data seamlessly. The workshop aimed to provide participants with a fundamental understanding of IoT concepts and practical skills using Arduino UNO, one of the most popular microcontroller boards. The workshop outlined the following basic topics:

- Definition and scope of IoT.
- Real-world applications and use cases.
- Importance of IoT in various industries.
- Overview of Arduino UNO board and its components.
- Installation of Arduino IDE (Integrated Development Environment).
- Basics of programming in Arduino IDE.

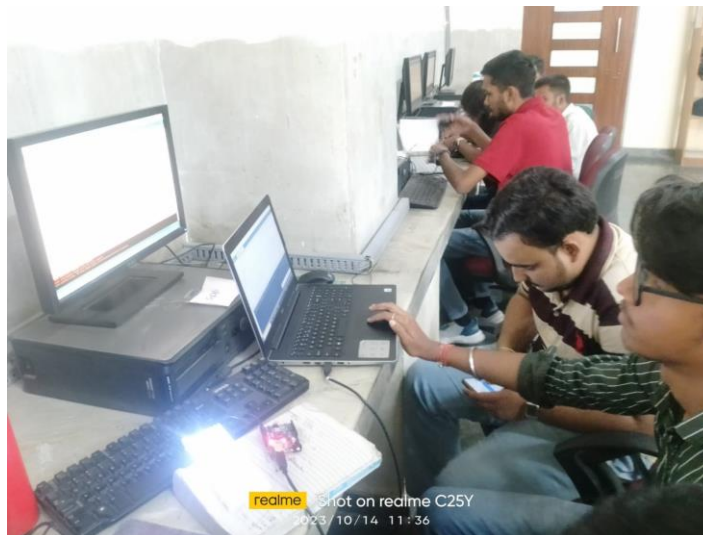
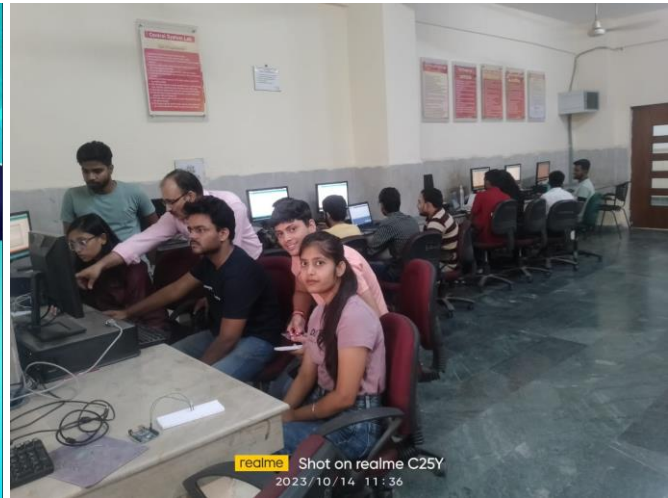
The first day of the session ended with doubts clearing of the students by Dr. Kamal Deep.

The next session of the workshop was taken by Mr. Chandrabhan on 15th October, 2023. He made discussion about the following topics:

- Interfacing Sensors and Actuators
- Connecting and programming sensors (e.g., temperature, humidity, light) with Arduino UNO.
- Controlling actuators (e.g., LEDs, motors) using Arduino UNO.
- IoT Communication Protocols, introduction to communication protocols such as Wi-Fi, Bluetooth, and MQTT.
- Setting up Wi-Fi communication with Arduino UNO.
- Sending and receiving data over the internet using Arduino UNO.

After the theory session on the second day, students were engaged in hands-on exercise to reinforce their learning.

Overall, participants gained valuable insights into the world of IoT and developed practical skills in working with Arduino UNO for building IoT applications. The students also learnt the application of Internet of Things (IoT) using Arduino UNO in business practices.



Objective: To student students understand how they can use IOT using Arduino in their startups

Benefits: Students also learnt the application of Internet of Things (IoT) using Arduino UNO in business practices

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Workshop on “Design Thinking, Critical Thinking and Innovation Design”

22nd December, 2023

Institution’s Innovation Council, Ministry of Education (MoE), Dronacharya Group of Institutions, Greater Noida organized a workshop on **“Design Thinking, Critical Thinking and Innovation Design”** on **22nd December, 2023**. **IIC Ambassador, Dr. Sangeeta Mangesh** was the eminent speaker of the workshop. 48 students attended the workshop.

The objective behind conducting the workshop was to educate the students and highlight the importance of Design Thinking, Critical Thinking and Innovation Design.

The speaker started the session by highlighting the fact that to carry innovation, critical thinking is a vital parameter. Assumptions must be made and there should be no lacking in the efforts to make the assumptions a reality. He said, the world is becoming more and more digital, it’s not the first click that matters, what matters are the actions that needs to be performed afterwards. To make an idea a successful reality, proper implementation of the thoughts is also necessary. Following were the topics that were taught in the session:

- Elements of Design Thinking
- Design Thinking Process
- Problem identification techniques/tools
- Customer journey map
- Empathy map template
- Need of social media
- Prototype techniques/tools
- Ideation techniques/tools

The session also covered how Design Thinking and Critical Thinking abilities are used to produce what customers really want. It also focuses upon delivering tangible and intangible products keeping in mind the feasibility and economical aspect of the product thus produced.

Overall, it was a rousing session for the attendees.



Objective: To educate the students & highlight the need of Design Thinking, Critical Thinking & Innovation Design

Benefits: Student understood Design Thinking Process & Elements involved in Design Thinking and got to know about Problem identification techniques/tools

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Expert talk on Process of Innovation Development, Technology Readiness Level (TRL); Commercialisation of Lab Technologies & Tech-Transfer

16th December 2023

Institution's Innovation Council (IIC), Ministry of Education (MoE) Dronacharya Group of Institutions, Greater Noida organized an expert talk on **“Process of Innovation Development, Technology Readiness Level (TRL); Commercialisation of Lab Technologies & Tech-Transfer”** on **16th December 2023**. **Mr. Vivek Soni (DEV IT SERV Pvt Ltd)** was the expert speaker of the session. 3rd and 4th year students attended the session.

The session emphasizes the significance of innovation and turning ideas into viable products, aiming to help students grasp the necessity and value of being prepared with technology.

Prof. (Dr.) S.K. Srivastava (Registrar) welcomed the speaker **Mr. Vivek Soni** and **enlightened students about the importance of innovation**. **Mr. Vivek** began by discussing how innovation evolves and the different steps in creating a new product. Following that, he introduced the concept of Technology Readiness Levels (TRLs) to the students. He explained, TRLs assess how advanced a technology is as it moves from research to development and deployment, using a scale from 1 to 9 where 1 is the earliest stage and 9 is fully matured technology. Continuing, she elaborated on the process of commercializing laboratory technologies and technology transfer.

At the end he did a brainstorming session where students shared their project ideas with him and **cleared their doubts. It was very interactive session.**





Objective : To create awareness among the students about the many innovative ways of technology readiness level.

Benefits : students understood the critical role that innovation, TRL, commercialization, and tech transfer play in shaping the future of technology.

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Twitter : <https://twitter.com/DronacharyaDgi/status/1826540633991098700/photo/3>

PowerPoint Presentation Competition on National Education Day

10th November, 2023

Institution's Innovation Council (IIC), Ministry of Education (MoE), Dronacharya Group of Institutions, Greater Noida celebrated **National Education Day** on **10th November, 2023**. **Power Point Presentation Competition** with the theme **‘Embracing Innovation’** was organized for the students of B.Tech. **85 students** participated in the competition. Ms. Swati Tyagi (Faculty, DGI) coordinated the event.

The Power Point Presentation Competition aimed to showcase the innovative ideas and projects of students. The participation in the competition boosted their creativity, problem solving skills and ability to embrace technological advancements. Participants were encouraged to present their ideas, projects or research work that demonstrated their innovative solutions to real-world challenges.

The competition featured presentations from students from different disciplines including mechanical engineering, electrical engineering, computer engineering and more. Participants were required to prepare Power Point Presentations that effectively communicated their innovative ideas.

The competition was judged by a panel of judges from different disciplines with judging criteria being pre-articulated to all the participants. The participants were judged on the basis of innovation and creativity, technical depth, practicality and feasibility, presentation skills, impact and potential.

Following the presentation, there was a Question and Answer Session wherein judges and the audience members had the opportunity to ask questions and engage in discussions with the participants. The judges also provided valuable feedback and insights also.

Lastly, winners were announced and were presented with certificate of appreciation.



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Twitter : <https://twitter.com/DronacharyaDgi/status/1788093036041208019/photo/2>

Objective: To give student a platform to showcase the innovative ideas and projects of students.

Benefit: The participation in the competition boosted student's creativity, problem solving skills and ability to embrace technological advancements.

Intra Institutional Innovation Competition

28th – 29th December, 2023

Institution's Innovation Council (IIC), Ministry of Education (MoE), Dronacharya Group of Institutions, Greater Noida organized an “Intra Institutional Innovation Competition” from 28th to 29th December, 2023. 90 students from 2nd and 3rd year of B.Tech participated in the competition. The guidelines of the competition were circulated beforehand to the students. Those willing to participate were asked to complete the registration process. They were required to participate in a team consisting of maximum 10 students.

The objectives of the competition were to make students think beyond the curriculum, to provide an opportunity for expression of creative thoughts and to instill research culture among students.

Day 1: 28th December, 2023

The day started with the enlightened speech of **Prof. (Dr.) Arpita Gupta (Director, DGI)**. She gave some simple yet useful points to be kept in mind to perform well in the competition. She also motivated the participants to dare to think differently. All the teams were asked to have a team leader. Before the presentation of the ideas, each showed their PPT to the mentor assigned to them and they refined their piece of work by giving valuable inputs.

On day 1, teams of CSE/CSIT/IT participated in the competition and presented their innovative ideas by way of impressive presentations. IIC Innovation Ambassadors of the college were the judges of the competition and they evaluated the ideas on the grounds of feasibility of the idea, way of presenting the idea and the changes it can bring to the development of the new or existing technology. 5 teams were shortlisted for the final round of the competition.

Day 2: 29th December, 2023

On day 2, teams of ECE/EEE/ECS/ME participated in the competition and presented their ideas for which they brain stormed for several days. Team leaders presented the problems with proposed solution. They were also judged on the same parameters and 5 teams were shortlisted for the final round.

On each day, the participants received many valuable feedbacks from the evaluators and were asked to make editing in the final presentation which was scheduled to be presented in front of external judge. **Ms. Priyanka Madnani (Founder- Easy to pitch)** was the judge of the final round. Before starting of the competition, she motivated the participants and told the points of consideration while presenting their ideas. She also told about making a good pitch for their ideas. Then, the shortlisted teams presented their edited ideas in front of her. They made good pitches also.

All the participant's efforts were applauded and the participants of top three ideas: MindSpark, Tech Titans and Apex Innovators were awarded with Cash prize of INR 5000 and Certificate of Achievement.

The competition proved to be a great success as the objectives of competition were achieved.





Objective: To make students think beyond the curriculum and explore newer ways to conduct an innovation.

Benefits: Students got platform to showcase their innovative ideas and were mentored by experts.

Poster Presentation of Innovations

4th – 6th December, 2023

Institution's Innovation Council (IIC), Ministry of Education (MoE), Dronacharya Group of Institutions, Greater Noida organized “**Poster Presentation of Innovations**” from **4th – 6th December, 2023**. **55 students** from **2nd and 3rd** year of B.Tech participated in the competition.

The objective of the event was to enlighten students towards innovation and creativity thereby uplifting human and society's upliftment and to enhance the entrepreneurial skills of the students.

The participation guidelines and rules were told to the students previously. The guidelines of the competition were:

- The posters must be in original and hand made. Copying would lead to disqualification from the competition.
- The competition sheets would be provided by the college.

- Individual participation must be there. No formation of teams is allowed.
- There is a limit on one entry per participant.
- The caption must be written on the top at center of the poster.
- Student must mention the ticket number provided by the coordinator on the bottom left corner of the poster. No name must be mentioned in the poster at any place.
- The judgement of the jury shall be final.
- The time limit for poster making was 3 hours.

On the initial day, Students were required to register themselves for the competition. Link of registration: <https://forms.gle/Af54Cg65D5mQjaka7> . They were required to make posters on the next day within the stipulated time and hang there posters on the specified boards. On the final day of the competition, jury members evaluated the posters and also gave valuable inputs to the students. The top three winners were announced and were awarded with a certificate of achievement.





Objective: To motivate students towards innovation & creativity & to enhance their entrepreneurial skills.

Benefits: Students made posters of their ideas and presented to the experts and were mentored by them.

Session on Becoming a World Class Innovator – Growth through Innovation

5th February , 2024

Institution's Innovation Council (IIC), Ministry of Education (MoE) Dronacharya Group of Institutions, Greater Noida organized a session on “**Becoming a World Class Innovator – Growth through Innovation**” on **5th February 2024**. The keynote speaker of the session was **Mr. Gurpreet Singh** (Team Lead, Hellotia Pvt. Ltd). 110 students attended the session.

The main objective of the session was to educate students about the importance of fostering innovation within a country and the various avenues through which innovation initiatives can contribute to the nation's prosperity on a significant scale.

Mr. Gurpreet Singh emphasized the importance of innovation among young, aspiring students. He encouraged all attendees to engage in research work and broaden their critical thinking skills.

The students at Dronacharya Group of Institutions showed great enthusiasm and attentiveness during the session. **Students were highly benefitted from the session.** Towards the end, Mr. Gurpreet Singh encouraged students to ask questions, and solutions were promptly provided. Students actively listened throughout the session.



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Twitter : <https://twitter.com/DronacharyaDgi/status/1781188770634530954/photo/2>

Objective : To educate students about the importance of fostering innovation within a country.

Benefit : Understood the importance of innovation in driving growth and success & learn the characteristics & skills required to become a world-class innovator.

World Creativity and Innovation Day

Quiz Competition

21st April 2024

To mark *World Creativity and Innovation Day*, **Institution's Innovation Council (IIC), Ministry of Education (MoE) Dronacharya Group of Institutions, Greater Noida** organized a “**Quiz Competition**” on **21st April 2024**. *Around 65 students from all the department participated in quiz competition enthusiastically saw active participation from over 65 students across all the*

The objective of the quiz competition was to encourage students to think creatively and understand the significance of innovation in engineering and other disciplines.

The quiz comprised of questions to challenge the participants’ understanding of creativity and innovation in engineering, technology, and entrepreneurship. Questions in the competitions include the topic:

Innovation in Engineering: This round focused on groundbreaking engineering innovations and their impact on society, featuring questions about important inventions, innovative engineering solutions, and their real-world applications.

Startup and Entrepreneurship: Participants were tested on their knowledge of prominent startups, entrepreneurial journeys of engineers, and government policies promoting innovation and startups, such as Startup India and Atal Innovation Mission.

Problem-Solving and Case Study: Teams were presented with real-world engineering challenges and had to propose creative solutions. This round tested their critical thinking and ability to apply engineering principles to practical problems.

After an intense competition, **Participant (Saptrishi Pal)** from the ECE Department **with maximum correct answers** secured the first position

The quiz competition, foster creativity and innovative thinking among the students. It encouraged them to reflect on the role of engineering in addressing real-world challenges and highlighted the importance of entrepreneurship in driving technological change.

