

# OPTIMYSTIC 20

# IEDOR



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Dear reader,

It gives us immense pleasure and pride in presenting you with the fifth edition of Opti-mystic - The annual magazine of the IEOR department. Over the past year, our department has achieved many successes and has made exceptional contributions to the field of industrial engineering and operations research. It is with this intention that we bring you a collage of all the achievements, hard work, and memories of this year. If you find anything interesting, please do not hesitate to get in touch with our faculty and students. Visit our website at <http://ieor.iitb.ac.in> for our contact details and more information.

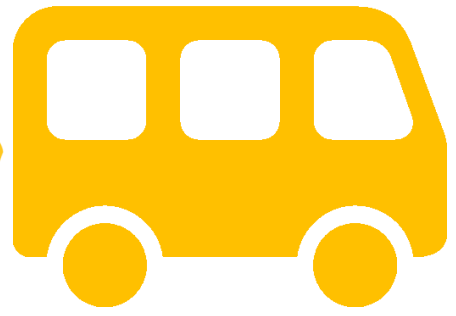
Amidst this COVID-19 pandemic, as many of us stay home, we miss our college. Yet our students have been creative and enthusiastic in developing this issue together from their homes. Regarding today's concern, Among the pool of articles, we have an article focused on the COVID-19 system dynamics model.

Thanks to the entire magazine team for putting in great efforts to ensure this magazine would be a success. <NAMES> have brought most of these articles for you while <NAMES> have designed this magazine. Also, we'd like to thank <NAME> for all the logistics support they have given us.

We would also like to thank the IEOR student association for their support and the president of IEORSA - <NAME> for their encouragement. This magazine would not be possible without the blessings of our convener <NAME> and all our faculty and support staff.

We wholeheartedly welcome all your suggestions, comments, and ideas and look forward to hearing from you!

# field trip!



*Technical learnings can be acquired better with live observations of the processes. Things are needed to be examined from the roots in order to start the analysis and draw out meaningful conclusions.*

With that thought in the minds, the IEORSA Council organized an industrial visit to John Deere, Pune plant. After contacting the company's HR and making all the transportation arrangements, the students, full with enthusiasm, set out for the industrial visit on 17<sup>th</sup> October, 2019 at 5:00am sharp.

On reaching the plant after a tiring journey of about 5 hours, we were welcomed by the plant's Operations Manager, HR Manager and our branch seniors working in the company. The firm has strict rules for Environmental Health & Safety and were cautious for the safety of their workers and visitors as well. After wearing all the PPEs, a small PPT was presented to us highlighting the Golden History of the company.

The Manager told that John Deere is a Fortune500 Company that was founded in 1837. The company is the world leader in production of agricultural, construction and forestry equipment. The operations in India began in 1998, for manufacturing of tractors for Indian market as well as for export. In India, there are total in all 8 manufacturing facilities in which Pune is a major one. The plant we were at is an export hub with a very high capacity (cannot highlight confidential data). Tractors are exported to US, Australia, Brazil, Africa, Mexico (upto 110 countries worldwide).

charts, different softwares used for simulation (like Anylogic, Morphy-2, Flexim). We were also made familiar with some of the industrial terminologies like FPY, Production yield, KPIs etc.

After completing the visit throughout the plant, we thanked the Operations Manager and other company officials for giving out their precious time and making the visit successful. Overall it was a great exposure of having visited and learning from a company like John Deere which rules the competitive market with great quality, customer satisfaction, employee satisfaction and good profit.

After the PPT session, we all were taken to the shop floor to get a glimpse of plant's functionality. Their shop floor perfectly implements Green Manufacturing techniques taking care of the safety norms as well. The Manager explained us the processes and how we can relate them with the career domains of our choice. After properly examining, we got to know a very important need of the organizations in today's world- HOW TO HANDLE AND USE BIG DATA. The John Deere, Pune site has a great infrastructure as it is equipped with various advanced MHEs, simulation softwares for testing and other purposes, highly upgraded machineries etc.

Students got all their doubts cleared- like how data for simulation is collected, the strategic decisions of the plant, assembly line balancing, inventory management, control

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