# A report of
# Webinar on Opportunities Associated with Smart Materials

**Date : 4/7/2022**

**Timing : 6pm**

**No.of participants :** 112

**Objective:** The webinar aimed to explore the opportunities inherent in Smart Materials and their implications for product design and manufacturing.

The webinar commenced with a warm introduction by Sarvesh Lanjekar, the President of MESA, followed by a welcoming address from Dr. Jayesh Dange, Head of Mechanical Department. Mr. Khopkar's expertise was evident as he delved into the subject matter, offering a comprehensive overview of the opportunities presented by Smart Materials.

Throughout the hour-long session, Mr. Khopkar elucidated the diverse applications of Smart Materials, providing real-world examples and discussing their impact on product design and manufacturing processes. His extensive experience brought depth to the discussion, enriching participants' understanding of the topic.

The webinar concluded with a vote of thanks from Sarvesh, expressing gratitude to Mr. Khopkar for his informative presentation. Participants departed with newfound knowledge and inspiration, poised to explore the possibilities of Smart Materials in their respective fields.

**Outcome:** Participants gained valuable insights into the potential applications and benefits of these materials in various industries.

LOKMANYA TILAK JANKALYAN SHIKSHAN SANSTHA' S

# LOKMANYA TILAK COLLEGE OF ENGINEERING

Sector - 4, Vikas Nagar, Koparkhairane, Navi Mumbai - 400709

## Department of Mechanical Engineering

**A report of**

**Webinar on Opportunities Associated with Smart Materials**

**Date : 22/7/2022**

**Timing : 11.30**

**No.of participants :** 87

**Objective:** The webinar aimed to explore the opportunities available in civil services and provide motivational insights to aspiring candidates.

The session commenced with a program introduction and guest introduction by Sakshi, the President of MESA. Dr. Jayesh Dange, Head of the Mechanical Department, extended a warm welcome to Mr. Medhekar, signaling the beginning of the webinar. Mr. Medhekar's one-hour session was filled with motivational anecdotes and practical advice related to the civil services examination.

Drawing from his experience and expertise, Mr. Medhekar provided valuable tips and strategies to tackle the challenges of the civil services exam. His engaging delivery and relatable examples resonated with the audience, instilling a sense of confidence and determination among the attendees.

The webinar concluded with a vote of thanks from Sakshi, expressing gratitude to Mr. Medhekar for his insightful and inspiring presentation. Participants left the session feeling motivated and better equipped to embark on their journey towards civil services.

**Outcome:** Participants were inspired and gained valuable insights into the civil services examination process and preparation.

**A report of**
**Webinar Report on Guidance for Mini and Major Projects for TE & BE based on IoT & Mechatronics**

**Date : 28/7/2022**

**Timing : 11.30**

**No.of participants :** 216

**Objective:** The webinar aimed to provide guidance and insights into mini and major projects for third-year (TE) and final-year (BE) students, focusing on IoT (Internet of Things) and Mechatronics.

The session commenced with a program introduction and guest introduction by Sakshi, a dedicated volunteer of MESA. Dr. Jayesh Dange, the Head of the Mechanical Department, extended a warm welcome to Dr. Deshmukh, setting the stage for the webinar. Over the course of an hour, Dr. Deshmukh provided comprehensive guidance on conceptualizing, planning, and executing mini and major projects in the field.

Drawing from his expertise and experience, Dr. Deshmukh elucidated various aspects of project development, including ideation, resource utilization, and integration of IoT and Mechatronics technologies. His informative session equipped participants with practical knowledge and strategies to excel in their project endeavors.

The webinar concluded with a vote of thanks from Sakshi, expressing appreciation to Dr. Deshmukh for his valuable guidance. Participants left the session with a clearer understanding of project requirements and a renewed enthusiasm to embark on their project journeys.

**Outcome:** Participants gained valuable insights into the intricacies of mini and major projects in the domains of IoT and Mechatronics.

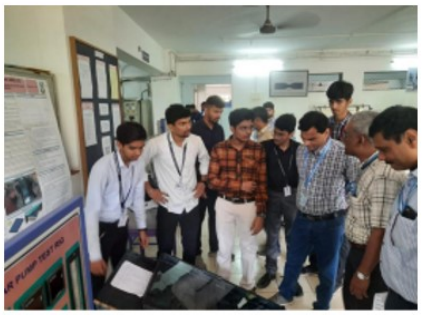
# A report on Project Exhibition

**Date : 3/5/2023**

**Timing : 11am**

**No.of participants :** 244

**Objective:** The objective of the project exhibition was to showcase the culmination of the final-year mechanical engineering students' efforts and innovations, providing a platform for them to display their major projects and technical proficiency.



Dr. Jayesh Dange, the Head of the Mechanical Department, and Dr. Sunil Satav, serving as the Project Coordinator, warmly welcomed Dr. Sunnapwar, who inaugurated the event. With a total of 244 students participating in over 60+ project groups from the 2022-23 batch, the exhibition vividly showcased the diverse and profound efforts of the students. Thorough evaluation by examiners ensured an impartial assessment of the students' innovations and technical prowess. The presence of third-year students (TE) added value, fostering a culture of collaboration and knowledge sharing. Overall, the exhibition stood as a testament to the department's unwavering dedication to nurturing creativity and excellence in engineering education.

**Outcome :** The outcome of the project exhibition was the recognition of students' innovative achievements, fostering engagement and networking opportunities while inspiring future engineers through practical demonstrations of academic rigor and creativity.

# Department of Mechanical Engineering

**Date :-** 28th and 29th JAN 2023

**Venue :-** Auditorium A wing 5th floor

**Activity organised by :-** SAE collegiate and MESA committee

**Activity :-** **TEDx Entrepreneur conclave & Talk's by SAE club**

SAE collegiate club Department of Mechanical Engineering Lokmanya Tilak College of Engineering organised, entrepreneurs conclave and tedx talks on 28 and 29 January 2023 in collaboration with VITAL VISHWA PUBLICATIONS and TEDx KALBADEVI. The program graced with eminent personalities CEOs ,CTOs, Eminent Entrepreneurs followed by book publications .The TEDx talks highlighted various aspects of life such as Health, Mind, Business, Career and so on; by 26 well-known speakers and motivators. The theme of the TEDx talks was "Responsibility, beyond the scope of work."

Guest of honours Dr. Aditi Govitrikar; a Doctor and well known actress alongwith Ms. Manisha Kelkar; actress and Race Car driver grace the occasion. Ms. Manisha also driven Go-Kart made by students and appreciated LTJSS racing team and wished team success for the future events.

This event was hosted by team LTJSS racing India Department of Mechanical engineering LTCoE for which they also received sponsorship from the TEDx.

The function was also Grace by principal Dr. Vivek Sunapawar Dr. J.J. Dange HoD of Mechanical department and other Mechanical Department faculties alongwith personalities from Industry, Academia influencers and entrepreneur.

# Department of Mechanical Engineering

## Glimpses of Activity:-

LTJSS RACING INDIA

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## Department of Mechanical Engineering

### Glimpses of Activity:-

# Department of Mechanical Engineering

Glimpses of Activity:-

Attendes:- Approx 100 Students from final year and third year along with facilities and 27 Speakers of TEDx and participation of Outsiders.

# Department of Mechanical Engineering

**Date :-** 07th and 08th FEB 2023

**Venue :-** A wing and C wing

**Activity organised by :-** MESA committee

**Activity :-** "YANTRIKA 2023"

Yantrika is an annual event organized by the Mechanical Engineering student association (MESA) at Lokmanya Tilak College of Engineering Koparkhairane. This two-day event provides our college students with an opportunity to showcase their technical, athletic, and artistic skills.

Yantrika 2023 was a well-rounded and comprehensive technical festival that provided students with a platform to showcase their technical, physical, and artistic skills. The technical events included technical games, quizzes, presentations, and project displays. These events aimed at providing students with an in-depth understanding of the latest advancements in their field and keeping them updated with the latest developments.

In addition to the technical events, Yantrika also organized sports events, which included indoor and outdoor games such as cricket and badminton, as well as fun games like treasure hunt. These events helped students stay physically fit and provided an opportunity for friendly competition.

# Department of Mechanical Engineering

## Glimpses of Activity:-

The cultural events at Yantrika 2023 included music, dance, and stage performances. These events provided a platform for students to showcase their artistic talent and creativity. The cultural events were an opportunity for students to demonstrate their skills and express themselves through various forms of art.

In conclusion, Yantrika 2023 was a well-rounded event that aimed at providing students with a comprehensive experience that allowed them to develop their technical, physical, and artistic skills. This festival provided students with a memorable college experience that they could cherish for years to come.

# Department of Mechanical Engineering

**Inauguration function: -**

The Mechanical Engineering student association (MESA) at Lokmanya Tilak College of Engineering Koparkhairane organized a two-day event called Yantrika-2023 from 7th to 8th February 2023. The event was inaugurated on 7th February with lamp lighting by the Principal of the college, Dr. Vivek Sunnapwar, in the presence of Vice Principal Dr. Subhash Shinde, Heads of all Departments, faculties, the MESA Team, and other students of the Mechanical department.

The Principal Dr. Vivek Sunnapwar, Vice Principal delivered motivating speech to the students, wishing them success for the event. Dr. Jayesh Dange HOD Mechanical and Prof. Ajay Kashikar, In-charge of MESA, also addressed the crowd and requested everyone's participation in Yantrika to make it a success. His speech emphasized the importance of student involvement and support for the event.

# Department of Mechanical Engineering

After the speeches, all dignitaries did a ribbon cutting, unveiled the Yantrika name design, and announced that Yantrika 2023 is officially started. They also played a snake and ladder floor game to bring joy to the students.

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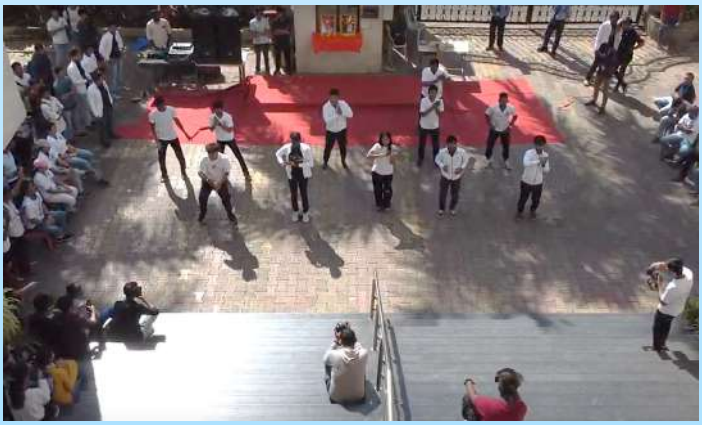
The event was concluded with a group dance performance by the students of MESA. The performance was a fitting finale to the inauguration of Yantrika, showcasing the students' talent and teamwork.



In conclusion, the Yantrika inauguration event was a significant one for the Mechanical Engineering students of Lokmanya Tilak College of Engineering Koparkhairane. The support from the college management and the students' active participation made the event a success.

## THEME OF YANTRIKA 2023:

The theme of Yantrika 2023 was "Universe and Aerospace". This theme aimed to educate and inspire individuals about the wonders of outer space and the advancements in the field of aeronautics. During the event, various technical competitions, workshops, and exhibitions were organized that showcased cutting-edge technology in the field of aerospace and space exploration. Through this event, students and faculty members had the opportunity to learn about the history and current state of the universe and aerospace industry. The theme of Universe and Aerospace was an excellent way to encourage young individuals to pursue careers in science, technology, engineering and mathematics.

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At Yantrika 2023, a photo booth was set up on event theme where participants had the chance to take photos of themselves in an astronaut look. Both students and faculty members greatly enjoyed this unique experience.

PHOTO BOOTH

**THIS YEAR ALL EVENTS OF YANTRIKA DIVIDED IN THREE MAIN VERTICALS: -**

1) Technical Events
2) Sports Events
3) Cultural Events

# Department of Mechanical Engineering

## TECHNICAL EVENTS

The Technical events of Yantrika 2023 saw an impressive turnout with a diverse range of competitions held. The Technical Quiz was a knowledge-based competition that tested the technical aptitude of the participants. The 'Electromaze' Competition was an interesting event where a stick with a ring was used to navigate a path without touching the wire. The 'Guess What' competition was a puzzle-based competition that challenged the participants' logical and analytical skills.

The Project Exhibition showcased some innovative project by the participants that displayed their technical prowess. The Robo Buildup event saw participants competing to build a functional robot. The Drone Workshop and Racing event was a hands-on experience that provided the participants with a chance to learn and race drones. The Mobile Photography Competition was a visual delight as participants showcased their photography skills with mobile cameras.

# Department of Mechanical Engineering

Overall, the Technical events of Yantrika 2023 provided a platform for the students to showcase their technical skills and learn from their peers. The diverse range of events ensured that there was something for everyone and the participants had a great time competing and learning.

**1.Technical Quiz: -**

The Technical Quiz was a challenging and informative event at Yantrika 2023. Participants were tested on their knowledge in various fields of engineering and technology. The event aimed to encourage students to think critically and expand their technical skills. The high level of competition made for an exciting and enriching experience for all involved.

- Faculty incharge: Prof. Milind Deotale, Dr.Sunil Satav
- Student incharge: Kshitij Joshi, Chirag Bhinde
- No.of students participated: 6

**2. 'Electromaze' Competition: -**

The Electromaze competition was a thrilling technical event at Yantrika 2023. The challenge was to navigate a ring on a stick through a complicated path without touching the wire, which was filled with electricity. The participants had to work creatively and strategically to make sure the ring reached the end smoothly and quickly. This event tested the students' problem-solving and teamwork skills, making it a highly anticipated and enjoyable event of the day.

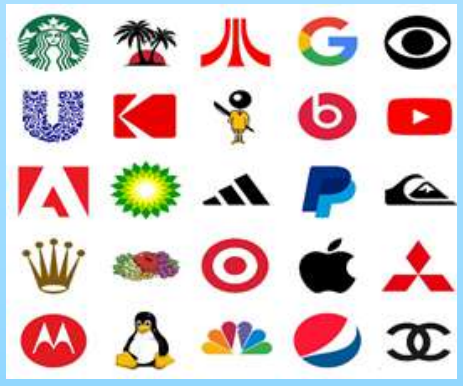
- Faculty incharge: Prof. Smita Ganjre
- Student incharge:Sagar Kolekar, Aditya Rakshe
- No.of students participated: 6

# Department of Mechanical Engineering

### 3.'Guess What' competition: -

The "Guess What" competition was a challenging event that tested the students' knowledge of popular logos. Participants were shown half of a logo and tasked with guessing which company it belonged to. This event was a great opportunity for students to showcase their memory and recall skills, as well as their knowledge of brands and logos. The competition was well-received by the participants, who enjoyed the challenge of identifying the logos and competing against their peers.

- Faculty incharge: Prof. Milind Deotale, Dr.Sunil Satav
- Student incharge: Kshitij Joshi, Chirag Bhinde
- No.of students participated: 6



### 4. Project Exhibition: -

The "Project Exhibition" event saw participation from one project team. Their project aimed to address the issue of water purity by developing a water purity level indicator. The device could accurately detect the presence of impurities in water and provide a visual indication to the user. This innovative solution aimed to contribute to a cleaner and safer water supply for all.

- Faculty incharge: Prof.Mahesh Bhadane, Prof.Vinod Bhaskarwar
- Student incharge: Aditya Jha
- No.of teams participated: 1

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**5. Robo Buildup: -**

The Robo Buildup workshop was a hands-on event where participants were taught how to build and program robots. It provided an opportunity for participants to learn about robotics and how to use technology to solve real-world problems. The workshop was designed to be interactive and engaging, allowing participants to work with cutting-edge technology and apply what they learned to their own projects. The goal of the workshop was to inspire participants to pursue careers in robotics and to develop the skills needed to be successful in this field.

- Faculty incharge: Prof.Krisna Dwivedi, Prof.Archana Gaikwad
- Student incharge: Rahul Tawde and Sudarshan More
- No.of students participated: 3

**6. Drone Workshop and Racing : -**

The drone workshop and racing event was a highly anticipated event in the Yantrika 2023 technical events lineup. Participants had the opportunity to learn about the latest drone technology and also engage in thrilling drone races. The workshop aimed to educate participants on the fundamentals of drone construction, operation and maintenance. The drone racing competition tested the participants' skills and their ability to maneuver the drones in a high-speed race.

- Faculty incharge: Prof.Krisna Dwivedi.
- Student incharge: Rahul Tawde and Sudarshan More
- No.of students participated: 2 + 1 faculty

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**7. Mobile photography competition: -**

The Mobile photography competition at Yantrika 2023 provided a platform for students to showcase their photography skills using mobile cameras. Participants captured creative and innovative photos on a given theme. The competition was judged based on technical skills, creativity and overall impact of the photograph. The winning entries displayed a unique perspective and exceptional mastery of mobile photography.

- Faculty incharge: Prof. Manoj Dhawade
- Student incharge: Sagar Kolekar, Aditya Rakshe
- No.of students participated: 6

# Department of Mechanical Engineering

## SPORTS EVENTS

The Sports events of Yantrika 2023 were a major highlight of the two-day event. The events were organized and managed by a dedicated team of faculty members and student coordinators. With a range of exciting and competitive sports, the students had the opportunity to showcase their skills and engage in friendly competition with their peers.

Box-Cricket, Badminton, Tug of War, Carrom and Chess, Rink-Football, and Human Snake and Ladder were the sports events organized in Yantrika 2023. Each event was managed by a team of faculty members and student coordinators, who worked tirelessly to ensure the smooth running of the events.

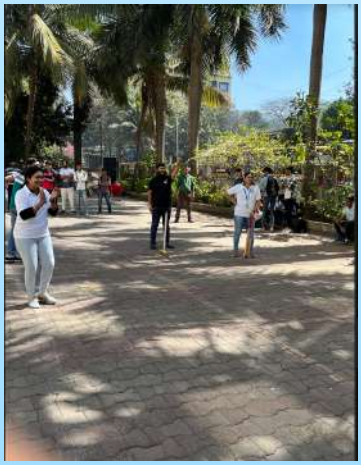
The participation was high in all the sports events and the students displayed great enthusiasm and competitive spirit. The faculty members also played an active role in the events, lending their support and guidance to the students. Overall, the Sports events of Yantrika 2023 were a huge success, and the students took away memories and experiences that they will cherish for a long time to come.

# Department of Mechanical Engineering

## 1. Box-Cricket: -

The Box Cricket event of Yantrika 2023 was a hit among the students and teachers alike. The event was organized by Prof. Manoj Dhawade and the student incharge was Anurag Koyande and Atish Surwade. A total of (insert number here) students participated in this exciting game, displaying their cricketing skills and sportsmanship. The energy and excitement of the participants made this event a memorable one.

- Faculty incharge: Prof. Manoj Dhawade
- Student incharge: Anurag Koyande, Atish Surwade
- No.of students participated: 10



## 2. Badminton: -

The Badminton event of Yantrika 2023 was a high-energy and thrilling affair that saw both teachers and students participate. The event was organized by faculty incharge, Prof. Manoj Dhawade and Dr. Santosh Dalvi, and student incharge Abhay Kanojia. There were Boys and Girls singles and doubles and mix matches played. The participants showed off their skills and athleticism on the court, while the crowd cheered them on. The atmosphere was electric and the spirit of sportsmanship was evident throughout the game, as both teachers and students enjoyed the challenge of the game

- Faculty incharge: Prof. Manoj Dhawade
- Student incharge: Abhay Kanojia
- No. of students participated: 36, 8 teams

# Department of Mechanical Engineering

### 3. Tug of war: -

The Tug of War event of Yantrika 2023 was a thrilling competition between the teachers and students teams. Both teams put in their best effort to pull the rope in their favor, creating an intense and exciting atmosphere. The student team emerged victorious in this closely contested match, earning cheers and applause from the spectators. The Tug of War event was well-coordinated by faculty incharge Prof. Krishna Dwivedi and Shweta Matey, and student incharge Sagar Kolekar and Aditya Rakshe.

- Faculty incharge: Prof. Krishna Dwivedi and Prof. Shweta Matey
- Student incharge: Sagar Kolekar, Aditya Rakshe
- No.of teams participated: 6 teams

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4. Carrom and Chess:

The Carrom and Chess event was held as a part of the sports events lineup of Yantrika 2023. A total of a number of students participated in the Carrom and Chess event, showcasing their skills and sportsmanship. The event was a thrilling and exciting experience for all participants and spectators, and contributed to the overall success of Yantrika 2023.

- Faculty incharge: Prof.Vijay Kumar
- Student incharge: Dhananjay Khairnar.
- No.of students participated: 28

**5. Rink-Football: -**

The Rink Football game was one of the most exciting events of Yantrika 2023. The game saw a good number of students participating and displaying their skills and sportsmanship on the field. The game was a thrilling display of teamwork and quick thinking, with the audience cheering on their favorite players throughout the match.

- Faculty incharge: Prof. Krishna Dwivedi
- Student incharge: Davesh Lad, Ayush Bhor
- No.of students participated: 9

# Department of Mechanical Engineering

**6. Human Snake and Ladder: -**

The Human Snake and Ladder game was a popular event at the Yantrika 2023 sports competition. The event saw a large number of students participating and was a fun-filled affair that kept the spectators engaged and entertained. The game was a testament to the creativity and energy of the participants, who brought their best skills to the table.

- Faculty incharge: Prof. Krishna Dwivedi
- Student incharge: Abhay Dubey, Aditya Jha
- No.of students participated: 16

**7. Mobile game competition (BGMI): -**

The Mobile game BGMI was one of the most popular events at Yantrika 2023. The competition saw a large number of participants from different departments. The game tested the players' speed, reflexes, and strategy, with the winner being declared based on their scores. The event was a huge success and was enjoyed by both the participants and the audience..

# Department of Mechanical Engineering

- Faculty incharge: Prof. Anil Magare
- Student incharge: Abhay Dubey, Aditya Jha
- No.of students participated: 6

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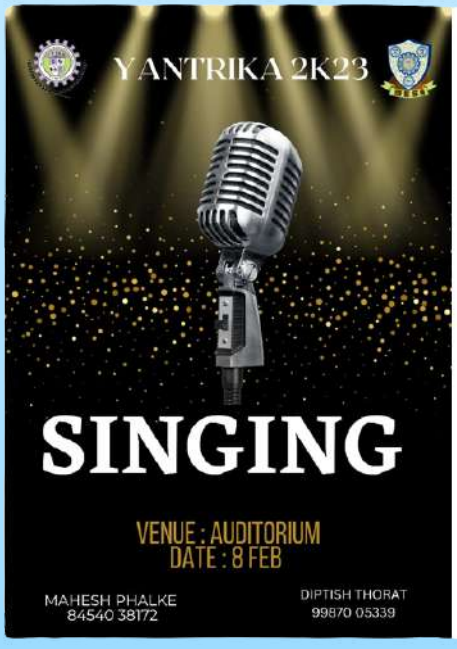
## Department of Mechanical Engineering

## CULTURAL EVENT



The Cultural events under Yantrika 2023 was a grand success, with a diverse range of events that showcased the talents of students, faculty, and professionally learned student-artists. The event was held on second day of Yantrika and was attended by a large number of people, including students, faculty, staff, and members of admin office. The event anchoring was done by Sarvesh Kulkarni.

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The first performance of the event was a singing performance that set the tone for a vibrant and exciting day ahead. This was followed by a flute performance that showcased the skills of a talented musician and provided a mesmerizing backdrop to the event.

One of the highlights of Yantrika 2023 was the Faculty Fashion Show, where members of the college's faculty showcased their fashion sense and sartorial elegance. This event was well received by the audience and received a lot of positive feedback.

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The Student Fashion Show was another event that received a lot of attention and praise. Students from the college showcased their fashion sense and creativity, and the event was a testament to the talent and potential of the next generation. The dance performance that followed was a mesmerizing display of grace, rhythm, and coordination. The dancers brought the audience to their feet with their electrifying performance, which was applauded by everyone present.

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The singing performance that followed was another highlight of the event, with talented singers showcasing their vocal skills. The audience was thoroughly entertained and left wanting more.

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The finale of Cultural event was a dynamic performance featuring a tabla performance by Prof. Ajay Kashikar Sir and Mayur and singing performance by Sarvesh Kulkarni. They both impressed the audience with their virtuosity and musical prowess, while Sarvesh Kulkarni brought the event to a fitting conclusion with his soulful voice and engaging stage presence. Sarvesh also performed two of his commercially released songs of 'Vaari' with Mayur and sang a medley of the greatest hits of the last 60 years, titled "60 Years of Bollywood". He thanked the audience for their participation in the Yantrika 22-23 events and expressed his excitement for next year's event, which promises to be even bigger and better.

# Department of Mechanical Engineering

Last event of Yantrika 2023 was DJ evening. It was a fantastic way for the students to unwind and dance the night away. With a lineup of talented DJs, the music was upbeat and energetic, keeping the dance floor packed throughout the night. The event was well-attended and the students enjoyed the opportunity to let loose and have fun with their peers. The atmosphere was electric, and the students reveled in the music, creating a memorable evening for all those in attendance.

In conclusion, Cultural event was a resounding success and provided a platform for students, faculty, and staff to showcase their talents. The event was well organized and received positive feedback from all who attended.

Conclusion:

In conclusion, Yantrika 2023 was a successful and well-organized event that showcased the technical, cultural, and athletic skills of the students of Lokmanya Tilak College of Engineering, Koparkhairane. The diverse range of events, from technical competitions, to sporting events like badminton and cricket matches, provided opportunities for students to put their technical knowledge to the test. The cultural events, including singing and dance performances, were also well received, providing a platform for students to showcase their artistic talents. The highlight of the event was the singing, musical and dance performances, which entertained the audience and brought the event to a fitting conclusion. The faculty fashion shows were also well-received, showcasing the creativity and individuality of the participants. The tabla and flute performance was a musical tour de force, captivating the audience with his virtuosity and musical prowess.

We are thankful to Principal and Management of Lokmanya Tilak College of Engineering, Koparkhairane who gave permission to conduct this event and gave their valuable guidance and support during the event. In conclusion, Yantrika 2023 was a wonderful opportunity for students to learn, grow, and have fun through both technical and cultural events and sports, and we look forward to next year's event with great anticipation.