

# India Automation Challenge 2023 – The Concept and Participants



The IAC Trophy

Conceived by **Industrial Automation**, India's leading monthly publication for discrete manufacturing and process automation, and sponsored by **IED Communications**, the **India Automation Challenge 2023 (IAC 2023)** is a competition for engineering students to showcase their skills and compete for cash prizes up to Rs 1,00,000.

IAC 2023 welcomes innovative minds of engineering students of India to design and build automation systems with practical applications in various domains, including transportation, health and fitness, security, medical, environmental protection, and more.

Participants can compete in categories like Smart Cities, Energy Management, Industry/Factory Automation, Smart Irrigation, Autonomous Vehicles, and Robotics or submit their own creative ideas.

"The India Automation Challenge 2023 offers an unparalleled opportunity for collaboration between the industry and colleges, nurturing the next generation of innovators who will shape the future of automation," says Dr B R Mehta, Former Sr. VP Reliance Industries and Member, Board of Governors and Chairman, Steering Committee for Automation Expo 2023, the Mentor to IAC 2023.

"The contest is open to all final and pre-final year engineering students worldwide, with a special focus on those from instrumentation, automation, robotics, and mechatronics disciplines. Registrations were facilitated by scanning a QR code, with a nominal fee of Rs 500 per group consisting of a maximum of three student members," says Ms Benedicta Chettiar, Director, IED Communications Ltd.

"The competition comprises four stages: Concept/Idea submission, Technical paper presentation, POC demonstration, and the Finale Presentation held at Automation Expo 2023 in Mumbai. Participants were judged on innovation, social impact, technical knowledge, and completeness of the prototype," explains Ms Jyothi Joseph, Joint Managing Director, IED Communications Ltd.

"We are proud to support this initiative and provide the resources needed for talented students to excel. The India Automation Challenge 2023 is an investment in our industry's future and India's digital transformation. We welcome potential sponsors to support this competition as a way to promote innovation and excellence in engineering," said Dr M Arokiaswami, Founder and Managing Director, IED Communications Ltd and the brain behind the Automation Expo series of exhibitions. "We believe that initiatives like this will help to nurture the next generation of engineers and support the growth and development of the industry," he adds.

## Top 10 Finalists

### i. Sharad Institute of Technology, Yadrav, Kolhapur

**Project:** Auto Turret, Auto Focus Using AI for Micro Vickers Hardness Tester

**Students:** Sanket Balkrishna Kinekar, Atharv Ashok Mali, Rushikesh Purnam Naik

**Mentor:** Prof. Dr A M Takale

### ii. MKSSS's Cummins College of Engineering for Women, Pune

**Project:** Process Automation Using LabVIEW

**Students:** Sakshi Kulkarni, Janhavi Pendharkar, Amolee Haldankar

**Mentor:** Prof. Dr Swati Madhe

### iii. SVKMs NMIMS Mukesh Patel School of Technology, Management & Engineering, Mumbai

**Project:** Process Automation Using LabVIEW

**Students:** Siddarth Bangera, Paul Joseph Anthony D'Souza

**Mentor:** Prof. Dattatray Sawant

### iv. Sharad Institute of Technology, CoE, Yadrav, Kolhapur

**Project:** Smart Hybrid Aquaponic E-control System for Agriculture Farm Field

**Students:** Sayali Rajgonda Raynade, Harshada Himmat Wani, Tejaswini Nagesh Tevlekar

**Mentor:** Prof Dhanashri M Biradar



### v. Vivekanand Education Society's Institute of Technology, Mumbai

**Project:** Greenhouse Automation Using OpenPLC

**Students:** Vinayak Rasal, Aman Rajbhar, Tanvi Desai

**Mentor:** Prof. Dr Nilima Warke

### vi. SNS College of Technology, Coimbatore

**Project:** Prioritized Power Distribution System (Smart Control Panel)

**Students:** Guhan Kumar T, Dhanush Kumar P, Hariprasath

**Mentor:** Prof. N Karthi

### vii. Vivekanand Education Society's Institute of Technology, Mumbai

**Project:** Hand Gesture Controlled Wheelchair

**Students:** Naimatullah Mullah, Umesh Suvasiya, Prajwal Poojari

**Mentor:** Prof. Abhishek Chaudhari

### viii. V R Siddhartha College of Engineering, Vijayawada

**Project:** Automated Spot Welding Using PLC

**Students:** D Kasim Moula, Divya Singhi, Parmarthi Ashitha

**Mentor:** Prof. G Dilli Babu

### ix. Sri Sivasubramaniya Nadar College of Engineering, Kalavakkam, Chengalpattu

**Project:** Gear Based Stewarts Platform for Manufacturing Automation

**Students:** Prasanna Perumal S, Suganthan S, Sudarson S

**Mentor:** Prof. Satheeshkumar GS

### x. Ramrao Adik Institute of Technology, Navi Mumbai

**Project:** PlantD – Health & Disease Finder

**Students:** Abhishek Sharma, Shivam Mishra, Archita Patil

**Mentor:** Prof. Ashwini Chavan

## Winners

Ist Prize, Rs 40,000/-

Vivekanand Education Society's Institute of Technology, Mumbai

Two 2nd Prizes, Rs 15,000/- each

Sharad Institute of Technology, Yadrav, Kolhapur

Vivekanand Education Society's Institute of Technology, Mumbai

Three 3rd Prizes, Rs 10,000/- each

SVKMs NMIMS Mukesh Patel School of Technology, Management & Engineering, Mumbai

V R Siddhartha college of Engineering, Vijayawada

Ramrao Adik Institute of Technology, Navi Mumbai

## Certificates of Participation

i. MKSSS's Cummins College of Engineering for Women, Pune

ii. Sharad Institute of Technology, CoE, Yadrav, Kolhapur

iii. SNS College of Technology, Coimbatore

iv. Sri Sivasubramaniya Nadar College of Engineering, Kalavakkam, Chengalpattu



# INDIA AUTOMATION CHALLENGE 2023

## Mentors, Sponsors, Partners and the Jury

Organising the **India Automation Challenge 2023** (IAC 2023) was a challenge too. It was made possible by the combined efforts of the Mentors, Sponsors, Partners and the Members of the Jury.

### Silver Sponsors

Axis Solutions Private Limited (ASPL) and Delta Electronics

### Logo Sponsors

Murrelektronik Pvt Ltd and VEGA India Level and Pressure Measurement Pvt Ltd

### Technology partners

IEEE-Bombay Section and ISA Maharashtra (International Society for Automation)

### Chief Program Coordinator

Prof Dattatray Sawant: Asst Professor, MPSTME NMIMS University, Mumbai

### Judges

1. Dr V P Raman, Engineering Consultant
2. Dr Keyur Vora, Vice President/HoD (C&I) Adani – Petrochemical Business
3. Mr Kartik Fojdar, Vice President and Head of CoE (Centre of Excellence) Engineering, Reliance Industries Ltd
4. Niranjan Bhise, President, ISA-Maharashtra Section
5. Ms Darshana Thakkar, MSME Transformation Specialist and Founder: Transformation –The Strategy HUB

### Mentors

1. Dr B R Mehta, Former Sr. VP Reliance Industries and Member, Board of Governors and Chairman, Steering Committee for Automation Expo 2023
2. Dr Kirti Shah, Associate Director – Engg, Brown Field Projects, Aker



Dr Keyur Vora felicitates Dr Bijal Sanghvi, Director, Axis Solutions



Dr Keyur Vora felicitates Tirthankar Bera, AGM, Delta Electronics India



Dr Keyur Vora felicitates Chetan TA, Managing Director, Murrelektronik Pvt Ltd



Dr Keyur Vora felicitates Gaurav Chandakkar, Marketing Manager and Sudarshan Srinivasan, MD, VEGA India



Dr B R Mehta felicitates Prof Dattatray Sawant



Dr B R Mehta felicitates Niranjan Bhise, President, ISA-Maharashtra Section



Dr B R Mehta felicitates Anand Gharpure, Chair - IEEE Bombay Section



Dr B R Mehta felicitates Dr V P Raman



Dr B R Mehta felicitates Dr Keyur Vora



Dr B R Mehta felicitates Ms Darshana Thakkar



Mentors Dr B R Mehta and Dr Kirti Shah felicitated by Ms Jyothi Joseph and Ms Benedicta Chettiar



**INDIA  
AUTOMATION  
CHALLENGE  
2023**

**Winners**



Vivekanand Education Society's Institute of Technology, Mumbai

**1st  
Prize**

The India Automation Challenge 2023 (IAC 2023) had a grand finale with the Awards Ceremony where the Winners were announced. There was the Winning Team that received a Cash Prize of Rs 40,000/-. Two teams were declared Runners up with Cash Prizes of Rs 15,000/- each. Three teams won the Third Position, with Cash Prizes of Rs 10,000/- each.

**The Top 10 Finalists**

- i. Sharad Institute of Technology, Yadrav, Kolhapur
- ii. MKSSS's Cummins College of Engineering for Women, Pune
- iii. SVKMs NMIMS Mukesh Patel School of Technology, Management & Engineering, Mumbai
- iv. Sharad Institute of Technology, Yadrav, Kolhapur
- v. Vivekanand Education Society's Institute of Technology, Mumbai
- vi. SNS College of Technology, Coimbatore
- vii. Vivekanand Education Society's Institute of Technology, Mumbai
- viii. V R Siddhartha college of Engineering, Vijayawada
- ix. Sri Sivasubramaniya Nadar College of Engineering, Kalavakkam, Chengalpattu
- x. Ramrao Adik Institute of Technology, Navi Mumbai

**The Winners**

- 1st Prize: Vivekanand Education Society's Institute of Technology, Mumbai
- 2nd Prize: Sharad Institute of Technology, Yadrav, Kolhapur
- 2nd Prize: Vivekanand Education Society's Institute of Technology, Mumbai
- 3rd Prize: SVKMs NMIMS Mukesh Patel School of Technology, Management & Engineering, Mumbai
- 3rd Prize: V R Siddhartha college of Engineering, Vijayawada
- 3rd Prize: Ramrao Adik Institute of Technology, Navi Mumbai



Sharad Institute of Technology, Yadrav, Kolhapur

**2nd  
Prize**



Vivekanand Education Society's Institute of Technology, Mumbai

**2nd  
Prize**



# India Automation Challenge 2023 – Student Pavilion







What the **Eminent Experts** associated with **India Automation Challenge 2023** had to say about the maiden edition...

“The India Automation Challenge (IAC) 2023 is a carefully curated competition for final year engineering students to test their knowledge and skills in terms of practical projects with clearly defined criteria. For me as the founder of IED Communications, it gives great satisfaction that after the Industrial Automation magazine and Automation Expo event, the India Automation Challenge is another welcome addition to our portfolio.”

In three words: **‘Nurturing Creative Energy’**

**Dr M Arokiaswamy**, Founder & Managing Director, IED Communications Ltd  
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“India Automation Challenge 2023 at Automation Expo 2023 was a new initiative by the team of IED. This was highly successful and the selected models were out of many presented by various colleges and 3 rounds of selection process. Normally all participants who have shown courage are awardees but the selection process selects topmost ranking models. Congratulations to Industrial Automation for this great initiative.”

In three words: **‘Highly Successful Initiative’**

**Dr B R Mehta**, Sr Vice President (Retd), Reliance Industries Ltd; and Chairman of Board of Governors for Automation Expo 2023  
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“We at Axis Solutions are happy to be associated with the maiden India Automation Challenge held in conjunction with Automation Expo 2023 at Mumbai in August. Industrial Automation magazine and the publishing



## INDIA AUTOMATION CHALLENGE 2023

# What the Experts Said

company, IED Communications, also the organisers of Automation Expo, have launched a great initiative to encourage final year engineering college students to think out of the box.”

In three words: **‘Championing Automation Excellence’**

**Dr Bijal Sanghvi**, Director, Axis Solutions Pvt Ltd  
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“India Automation Challenge 2023 was a wonderful event to inspire, encourage and motivate young engineering talents and to develop their interest towards the core field of Industrial Automation. Delta Electronics India is proud to be associated with such an event of

harnessing young minds for a better and bigger cause for our industry. Wish you all the luck for your future endeavours.”

In three words: **‘Inspiring. Innovative. Motivating’**

**Tirthankar Bera**, Assistant General Manager, Delta Electronics India Pvt Ltd  
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“I am impressed with the India Automation Challenge 2023 initiative. It is a remarkable move that undoubtedly holds immense promise for our engineering students and the broader community. The goal of fostering automation excellence in India is both aspirational and ambitious. It holds the potential to shape the future of technology and industry in our country. I extend my warmest congratulations and best wishes to all the students and committed staff members who participated in this event.”

In three words: **‘Invent, Innovate, Impact’**

**Chetan TA**, Managing Director, Murrelektronik Pvt Ltd  
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“India Automation Challenge, a new initiative by IED Communications, is definitely a step further in expanding the platform for all young students and their faculty members. It's a noteworthy step to empower the students and faculty to embrace automation as a catalyst for progress. As India keeps striding towards becoming a global technological hub, initiatives like this play a definitive role in equipping young minds with the skills and knowledge they need.”

In three words: **‘Harnessing Curiosity Creatively’**

**Sudarshan Srinivasan**, Managing Director, VEGA India Level and Pressure Measurement Pvt Ltd  
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“The India Automation Challenge 2023 is a unique concept. The idea is to encourage the academic community of students and their faculty. It helps students to highlight their skills not just in programming; rather it calls upon their skills to select problems which are socially relevant, and visualise the actual place of deployment. Hence it takes their understanding from a standard lab setting to actual field and user.”

In three words: **‘Dream. Plan. Build.’**

**Mr P V Sivaram**, Evangelist for Industry 4.0,  
Digital Transformation, Industrial Automation  
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“It was an honour for me to be a judge of the ‘India Automation Challenge 2023’ organised by Industrial Automation. I have witnessed the enthusiasm of students, teachers, and professors during this Automation Challenge. The live demonstrations showcased by students were witnessed by exhibition visitors from India’s leading manufacturing companies, engineering consultants, college students and exhibitors.”

In three words: **‘Diligence. Determination. Dedication.’**

**Dr Keyur Vora**, Vice President/HoD (C&I) Adani  
– Petrochemical Business  
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“Automation Expo 2023 saw a new initiative for final year engineering students of India to showcase their projects live during the show. This new initiative by IED Communications is a great motivation and success, bridging the gap between industry and institutions as the students got an opportunity to interact with the industry professionals. This would go a long way to motivate and groom the budding engineers.”

In three words: **‘Bridging the Gap’**

**Dr V P Raman**, Engineering Consultant  
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The India Automation Challenge, an initiative by IED Communications for engineering students to showcase their innovation and creativity in solving global automation challenges is one of its kind in India and the most laudable. The event was sponsored by leading technology partners and held in conjunction with the annual Automation Expo show, which gave these youths an opportunity to interact with industry, and industry to look at their creations. Incredible!

In three words: **‘Let us Rise!’**

**Hemal Desai**, Vice President – Quality & Marketing Communication | Quality, Endress+Hauser India  
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“India Automation Challenge 2023 at Automation Expo 2023, Mumbai, is a unique initiative designed, planned, and executed by Industrial Automation and IED Communications. As a jury, it was very challenging to identify the best innovation during every jury round. Finally, with the collaborative effort of the jury members at various stages, we identified the top 10 inventions and provided them a stall to showcase their innovation.”

In three words: **‘Collaborate. Innovate. Demonstrate.’**

**Darshana Thakkar**, MSME Transformation Specialist and Start-up Mentor  
Founder & CEO, Transformation – The Strategy Hub  
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“I had the privilege to evaluate all 10

projects/demos presented by students of various prestigious colleges at the Expo. I was impressed by the thought process and vision of students while developing the projects. It reflected their ability to think about how they can apply the knowledge of science, engineering and technology to develop the products which can add value to the life of common people, farmers, workers, etc.”

In three words: **‘Thoughtful. Viable. Practical.’**

**Dr Kartik Fojdar**, Vice President, Head – CoE Engineering Instrumentation, Reliance Industries Ltd  
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“The India Automation Challenge 2023 was a remarkable platform that showcased the immense talent and potential that our country possesses in the domain of industrial automation. I express my deepest gratitude to Industrial Automation, IED Communications, and the dedicated members of the organising committee for their unwavering support and commitment to advancing innovation in our country.”

In three words: **‘Innovation. Collaboration. Determination.’**

**Prof Dattatray Surykant Sawant**, Chief Coordinator and General Chair, MPSTME, NMIMS University Mumbai  
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