



EVENT REPORT

Industry 4.0 & Digitalization

Organized By:

ISA Student Chapter 2024, Instrumentation & Control Eng. Dept.

GEC-Gandhinagar

DATE: October 15, 2024

FACULTY ADVISOR

Dr. S. A. Rankawat

DEPT. COORDINATOR

Prof. Ketan Archarya

An Overview




The ISA (International Society of Automation) Student Chapter at GEC, Gandhinagar organized a seminar on **Industry 4.0 and Digitalization** aimed at providing students with insights into the transformative changes happening in industries due to the Fourth Industrial Revolution. The event took place on October 15, 2024, with a large turnout of Instrumentation & Control engineering students, professors.

Expert from SEIMENS was called to share his knowledge with the students. **Mr. Chandrakant Keshrani** was kind enough to come forward and deliver the expert session. He is currently the Branch Manager at Siemens India Ltd., Ahmedabad Branch.

With an enthusiastic response there were approximate 60 participants.

With the great expertise of keynote speaker all the enthusiastic participants found the technical session informative and worthwhile. The huge participation of the students and the efforts of the expert session team made the event a huge success.

GOVERNMENT ENGINEERING COLLEGE, SECTOR-28, GANDHINAGAR
INSTRUMENTATION & CONTROL DEPARTMENT



ISA Students Chapter Organizes
An
Expert Session On
INDUSTRY-4.0 & DIGITALIZATION
by
Mr. Chandrakant Keshrani [Branch Manager, Siemens India Ltd, Ahmedabad Branch]

Date: **15th October 2024** Time: **11:00 AM** Onwards Venue: Room No. **2202-A**

Registration Link: <https://forms.gle/sabAF4ayUgw3iNAQ9>

PATRON Dr S. P. Dave Principal	CONVENER Dr N.K. Arora HOD	ISA FACULTY ADVISER Dr S.A. Rankawat	DEPT.COORDINATOR Prof. K.K.Acharya
---	---	--	--

About ISA

ISA (International Society of Automation) is a non-profit professional association that sets the standard for those who apply engineering and technology to improve the management, safety and cyber security of modern automation and control systems used across industry and critical infrastructure.

It was officially established as Instrument Society of America on 28th April, 1945 in Pittsburgh, Pennsylvania, it's formerly known as Instrumentation, Systems and Automation Society which is a nonprofit technical society for engineers, businessmen, educators, and students who collectively work, study or are interested in field of automation.

Few students who were keen to establish a society or a club focused on industrial automation and professional Instrumentation got an idea to have a chapter being established under the aegis of International Society of Automation. So, after lots of planning and acknowledging students of Instrumentation and control Department of Government Engineering College, Gandhinagar finally established a student's chapter with the name 'ISA Students' Chapter GEC-Gandhinagar' in 2019. There are 25 student section of ISA, which are focusing on overall development of student's skills. GEC-Gandhinagar ISA Section focuses on accomplishing these tasks.

Session Summary

The seminar's objective was to introduce students to the key concepts of **Industry 4.0**, a term that represents the ongoing automation of traditional manufacturing and industrial practices using modern smart technology. Topics included smart factories, Internet of Things (IoT), data analytics, cloud computing, and artificial intelligence (AI) in industrial applications.

The session commenced with an enthusiastic speech by our esteemed professor, Dr. S. A. Rankawat. Followed by words of enlightenment by professor Prof. K. K. Acharya. The session was then handed over to the students of ISA student Chapter coordinators.









The seminar included in-depth sessions on the following topics:

- Introduction to Industry 4.0: An overview of the Fourth Industrial Revolution, covering the convergence of digital, physical, and biological technologies.
- Smart Factories and Cyber-Physical Systems: This session explored how interconnected systems monitor physical processes, create a virtual copy of the physical world, and make decentralized decisions.
- Internet of Things (IoT): A detailed discussion on how IoT devices enable the seamless communication of machines, sensors, and other industrial equipment, contributing to operational efficiency.
- Digital Twin Technology: A talk on how virtual replicas of physical systems allow real-time monitoring, simulation, and optimization of manufacturing processes.
- Data Analytics and AI in Industry: A session on the role of big data, predictive analytics, and AI in automating decision-making, reducing downtime, and optimizing resource management in industrial environments.



A panel discussion with industry experts and faculty members addressed questions from the audience. Topics ranged from the ethical implications of automation to the future job market in a digitalized world. Students engaged actively in the discussion, providing insights into how they perceive the role of automation in their future careers.



Students from Instrumentation actively participated in the seminar. Many students asked questions about the real-life applications of Industry 4.0 technologies and sought advice on how to prepare for careers in the digitalized industrial sector.

Participants provided positive feedback, emphasizing the relevance and timeliness of the seminar topic. Many appreciated the balance between technical knowledge and practical case studies, which allowed them to understand both theoretical concepts and real-world applications. The interactive panel discussion was particularly well-received, with students gaining clarity on the industry's expectations and the future of automation.





ISA Student Chapter, Instrumentation & Control Department
Government Engineering College, Gandhinagar
Attendance Sheet

Event Name: Industry 4.0 & Digitalization Date: 17/10/2024 Time: 11:00 AM

No.	Name	Email id	Branch	Semester	Sign
1	Aarav Patel	aaravpatel123@gmail.com	IC	7th	[Signature]
2	Ashwin Kumar	ashwin123@gmail.com	IC	7th	[Signature]
3	Arjun Kumar	arjun123@gmail.com	IC	7th	[Signature]
4	Arjun Kumar	arjun123@gmail.com	IC	7th	[Signature]
5	Ashwin Kumar	ashwin123@gmail.com	IC	7th	[Signature]
6	Ashwin Kumar	ashwin123@gmail.com	IC	7th	[Signature]
7	Ashwin Kumar	ashwin123@gmail.com	IC	7th	[Signature]
8	Ashwin Kumar	ashwin123@gmail.com	IC	7th	[Signature]
9	Ashwin Kumar	ashwin123@gmail.com	IC	7th	[Signature]
10	Ashwin Kumar	ashwin123@gmail.com	IC	7th	[Signature]
11	Ashwin Kumar	ashwin123@gmail.com	IC	7th	[Signature]
12	Ashwin Kumar	ashwin123@gmail.com	IC	7th	[Signature]
13	Ashwin Kumar	ashwin123@gmail.com	IC	7th	[Signature]
14	Ashwin Kumar	ashwin123@gmail.com	IC	7th	[Signature]
15	Ashwin Kumar	ashwin123@gmail.com	IC	7th	[Signature]
16	Ashwin Kumar	ashwin123@gmail.com	IC	7th	[Signature]
17	Ashwin Kumar	ashwin123@gmail.com	IC	7th	[Signature]
18	Ashwin Kumar	ashwin123@gmail.com	IC	7th	[Signature]
19	Ashwin Kumar	ashwin123@gmail.com	IC	7th	[Signature]
20	Ashwin Kumar	ashwin123@gmail.com	IC	7th	[Signature]
21	Ashwin Kumar	ashwin123@gmail.com	IC	7th	[Signature]
22	Ashwin Kumar	ashwin123@gmail.com	IC	7th	[Signature]
23	Ashwin Kumar	ashwin123@gmail.com	IC	7th	[Signature]
24	Ashwin Kumar	ashwin123@gmail.com	IC	7th	[Signature]
25	Ashwin Kumar	ashwin123@gmail.com	IC	7th	[Signature]
26	Ashwin Kumar	ashwin123@gmail.com	IC	7th	[Signature]
27	Ashwin Kumar	ashwin123@gmail.com	IC	7th	[Signature]
28	Ashwin Kumar	ashwin123@gmail.com	IC	7th	[Signature]
29	Ashwin Kumar	ashwin123@gmail.com	IC	7th	[Signature]
30	Ashwin Kumar	ashwin123@gmail.com	IC	7th	[Signature]

ISA Student Chapter, Instrumentation & Control Department
Government Engineering College, Gandhinagar
Attendance Sheet

Event Name: Industry 4.0 & Digitalization Date: 17/10/2024 Time: 11:00 AM

No.	Name	Email id	Branch	Semester	Sign
1	Ashwin Kumar	ashwin123@gmail.com	IC	7th	[Signature]
2	Ashwin Kumar	ashwin123@gmail.com	IC	7th	[Signature]
3	Ashwin Kumar	ashwin123@gmail.com	IC	7th	[Signature]
4	Ashwin Kumar	ashwin123@gmail.com	IC	7th	[Signature]
5	Ashwin Kumar	ashwin123@gmail.com	IC	7th	[Signature]
6	Ashwin Kumar	ashwin123@gmail.com	IC	7th	[Signature]
7	Ashwin Kumar	ashwin123@gmail.com	IC	7th	[Signature]
8	Ashwin Kumar	ashwin123@gmail.com	IC	7th	[Signature]
9	Ashwin Kumar	ashwin123@gmail.com	IC	7th	[Signature]
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

Conclusion

The seminar on Industry 4.0 and Digitalization was a resounding success, providing students with a deep understanding of the transformative technologies shaping the future of industries. The ISA Student Chapter successfully facilitated an environment where students could learn, discuss, and engage with experts about the opportunities and challenges brought by the digital revolution in industries.

The event was highly successful in achieving its goals. Key outcomes included:

- Enhanced understanding of how Industry 4.0 technologies are revolutionizing traditional manufacturing and industrial processes.
- Awareness of the critical skills needed for careers in industrial automation, data analytics, and AI.
- Insights into the ethical, social, and economic implications of digitalization in industries.
- Networking opportunities with industry professionals for internships, mentorship, and potential career paths in the field of automation and digitalization.