

Sarvajani College of Engineering & Technology, Surat

Instrumentation & Control Department

Report on Webinar On Scope of Instrumentation & Control in Germany



 Sarvajani University
Sarvajani College of Engineering and Technology, Surat

Shri Sitaram Somani
Faculty of Instrumentation and Control Engineering



**Webinar
on
Scope of Instrumentation & Control in
Germany**

Date: 13th Feb, 24
Time: 2:15 pm to 3:30 pm
Day: Tuesday
Duration: 1 hour
Online Session.

Guest Speaker:
Apurva Tailor, Alumni, SCET, IC

Target Audience:
Fourth year & Third Year I&C
Students

Meeting link:
meet.google.com/wks-fhid-ygm

Event Detail

Date: 13th Feb, 2024

Time: 2:15 pm to 3:30 pm

Venue: Embedded Lab

Expert : Apurva Tailor, Alumni, SCET, IC

Participants: 16 students of BTech III

Apurva Tailor is an alumni of IC SCET. After graduation he joined ME in information and electrical engineering at Hochschule Wismar, Germany. Currently he is doing internship at Tesla as an Intern for Automation and controls Engineering.

The objective of the lecture was to give students guidance for further studies in Germany. The content covered by him included reasons and benefits of studying in Germany for I&C engineers. The list of universities and courses to be chosen, the expenditures and salary after study etc. Points were covered in depth by him.

Total 16 students and faculties attended the lecture. The pictures of webinar in online mode were missed actually. But the glimpses of ppt presentation is shown here.

Glimpses of the ppt:



The slide is a dark blue presentation slide for a webinar. At the top left is the Sarvajani Education Society (SCET) logo, which is circular with a red flame in the center and the text 'SARVAJANI EDUCATION SOCIETY' and 'SCET' around it. To the right of the logo, the text reads: 'Sarvajani University, Sarvajani College of Engineering and Technology, Surat.' Below this, it says 'Shri Sitaram Somani Faculty of Instrumentation and Control Engineering'. On the top right is the Sarvajani University logo, which is circular with a colorful 'SU' in the center and the text 'SARVAJANI UNIVERSITY' around it. The main title of the webinar is 'Webinar on: Scope of Instrumentation & Control Engineering in Germany'. Below the title, the 'Guest Speaker' is listed as 'Apurva Tailor, Alumni, SCET, IC'. The 'Target Audience' is 'Fourth year & Third Year I&C Students'. The 'Meeting link' is provided as 'meet.google.com/wks-fhid-ygm'. On the right side, the event details are listed: 'Date: 13th Feb, 2024', 'Time: 2:15 pm to 3:30 pm', and 'Day: Tuesday'. A small number '1' is visible in the bottom right corner of the slide.

Sarvajani University,
Sarvajani College of Engineering and Technology,
Surat.

Shri Sitaram Somani
Faculty of Instrumentation and Control Engineering

Webinar on:
Scope of Instrumentation & Control Engineering in Germany

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Apurva Tailor, Alumni, SCET, IC

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Why to study in Germany?



- **Globally recognized degrees:** German universities are renowned for their high academic standards and many rank among the best in the world. A degree from a German university will be well-respected by employers and institutions around the globe.
- **Wide range of programs:** You can choose from a vast array of programs taught in English, covering diverse fields like engineering, business, medicine, humanities, and more.
- **Focus on research and industry:** German universities emphasize research and have close ties to industry, providing valuable practical experience and networking opportunities.
- **Free or low tuition fees:** Public universities in Germany are tuition-free for all students, including international ones, in most states. Even private universities have relatively low fees compared to other developed countries.

Why to study in Germany?



- **Part-time work opportunities:** International students can work up to 20 hours per week to help cover their living expenses.
- **Excellent job prospects:** Germany has a strong economy and faces a shortage of skilled workers in many fields. This makes it an attractive destination for graduates seeking employment opportunities after their studies.
- **Post-study work visa:** After graduation, you can apply for a post-study work visa to stay in Germany for up to 18 months and search for a job.
- **Travel opportunities:** Germany is centrally located in Europe, making it an ideal base for exploring other European countries during your studies.

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How is it beneficial for an I&C Engineer?



- **Manufacturing:** Similar to the global scenario, this is the largest employer, including automotive giants like BMW, Mercedes, Audi, Porsche, Volkswagen and other sectors like chemicals and pharmaceuticals.
- **Energy:** Germany is a leader in renewable energy, and engineers are needed for designing and maintaining control systems for wind turbines, solar panels, and power plants.
- **Process Industries:** Chemical and pharmaceutical companies require expertise in process control and automation.
- **Machinery and Automation:** This sector is booming, and engineers are needed for designing and implementing control systems for robots, machine tools, and other automated systems.
- **Building Automation:** Energy efficiency is a priority in Germany, and engineers are needed for designing and implementing smart building control systems.

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German Universities

Technical University

- Bachelors/Masters offered
- Mainly theoretical knowledge
- Research oriented work
Faculties like Education, Engineering, Science, Law, Medicine, Social Sciences, Business Management are taught

University of Applied Sciences

- Mainly Bachelors offered
- Very few universities offer Masters also
- Mainly practical knowledge
- Application oriented work
Excellent job opportunities available due to close tie ups to industries

Colleges of Art, Film & Music

- Artistic courses such as music, architecture, dance, drama, etc
- Directors, cinematographers, screenwriters etc are trained.
- For admission a specific talent needs to be demonstrated.

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The academic years

- The academic year is divided into two semesters at German universities – winter and summer semester.

- Semester schedule at most universities:
Universities Winter semester: October to March
- Summer semester: April to September

- Universities of applied sciences Winter semester: September to February
Summer semester: March to August
- Important:
- Some degree programmes only begin in the winter semester

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Some universities for I&C Engineers



- [Master's degree • Automotive Systems • Esslingen University of Applied Sciences • Esslingen am Neckar](#)
- [Master's degree • Automation & Control \(A&C\) • RPTU University of Kaiserslautern-Landau • Kaiserslautern](#)
- [Master's degree • Automation and Robotics • TU Dortmund University • Dortmund](#)
- [Master's degree • Automation and Safety • University of Duisburg-Essen • Duisburg](#)
- [Master's degree • Automation & IT \(Master of Engineering\) • TH Köln \(University of Applied Sciences\) • Köln](#)
- [Master's degree • Systems and Automation – Master's Study Programme • RWTH Aachen University • Aachen](#)
- [Master's degree • Engineering and Sustainable Technology Management – Industry 4.0: Automation, Robotics & 3D Manufacturing \(MEng\) • SRH Berlin University of Applied Sciences • Berlin](#)
- [Master's degree • Electrical Engineering and Information Technology • Otto von Guericke University Magdeburg • Magdeburg](#)

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Some universities for I&C Engineers



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- [Master's degree • Master's in Embedded Systems Engineering \(ESE\) • Dortmund University of Applied Sciences and Arts • Dortmund](#)
- [Master's degree • Technology and Innovation Management • Harz University of Applied Sciences • Wernigerode](#)
- [Master's degree • Control, Microsystems, Microelectronics \(CMM\) • University of Bremen • Bremen](#)
- [Master's degree • Control, Computer and Communications Engineering \(CCCE\) • Technische Hochschule Mittelhessen University of Applied Sciences • Friedberg \(Hessen\)](#)
- [Master's degree • Mechatronics • Hamburg University of Technology • Hamburg](#)
- [Master's degree • MSc Electrical Engineering and Information Technology • Deggendorf Institute of Technology • Deggendorf](#)

Many more courses are available. You can explore the website "<https://www.daad.de/en/studying-in-germany/>" for courses.

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Basic Required Documents for an admission.



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- APS Certificate
 - Diploma/ Bachelor's degree
 - Diploma/ Bachelor's Transcript
 - 12th all marksheets
 - 10th std marksheet
 - English Proficiency
 - German Proficiency (If applicable)
- Letter of Recommendation (from at least 3 professionals)
- Resume
- Work experience (If applicable)
- Additional Technical Certificates (Related to master program)
- Passport

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Finance: India to Germany



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- Basic:
 - Visa Processing Fees: Rs 7000 to 9500*
 - APS Certificate Fees: Rs 18000
 - Block Account Fees: Rs 10 Lac to 10.5 Lac*
 - Flight Cost: Rs 30000 to 55000*
 - Semester Contribution Fees: ***
 - Exam Fees:
 - IELTS: Rs 16250
 - German: £129 (A1), £139(A2), & £179(B1)
- Additional:
 - Shopping
 - Consultancy (If applicable)
 - Language Coaching Fees

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Post Study:



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- The average salary for instrumentation and controls engineers in Germany varies depending on experience, industry, and location. It typically ranges from €45,000 to €80,000 per year for experienced professionals. The job outlook is positive, with projected growth of 5-7% over the next decade.
- Students from non-EU countries who wish to work in Germany after graduating can extend their residence permit for up to 18 months to find work relating to their studies.
- The 18 months begin as soon as you receive your final exam results, so you should start looking for employment during your final semester. In these 18 months, you can work as much as you like and take up any kind of employment to support yourself.
- As soon as you 've found a job role you 'd like to accept, you should apply for a German residence permit or EU Blue Card (similar to the US Green Card). You can remain in Germany while your application is pending.

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PR in Germany



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- Duration of stay:
 - General Category: 5-8 years
 - Graduate from German University: 2 years
 - Self-employed person: 3 years
 - EU Blue Card Holder: 2-3 years
- Other Requirements:
 - Financial Independence
 - No Criminal Record
 - Health Insurance
 - Pension Insurance Contribution
 - Educational Documents

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It was very interactive session and information given by Apurva was based on his experience.

Report Prepared by
Tejal Joshi
Assistant Professor,
I&C department, SCET