

FR. CONCEICAO RODRIGUES COLLEGE OF ENGINEERING



**AN INITIATIVE BY THE DEPARTMENT OF
ELECTRONICS & COMPUTER SCIENCE**

Supporting Placements & Higher Education Requirements in Engineering (SPHERE)

SPHERE aims to create a complete 360° support system in becoming a single point of contact at the Department level for addressing student related queries of career counseling, academic guidance, placements, higher education, developing the relevant skill sets or upskilling etc. along with providing suitable resources in order to achieve them.

ACTIVITIES FOR A.Y. 2022 – 2023

No.	Name of SPHERE Activity	Date	Scan QR Code for Details
1.	Preparatory Guidance & Online Mentoring for Studying Abroad in Ireland	17 th June 2022	
2.	Introduction to SPHERE – Supporting Placements & Higher Education Requirements in Engineering	27 th July 2022	
3.	Experience Sharing of Hackathons & Competitive Coding – Guidance for Proficiency in Programming	5 th August 2022	
4.	Preparatory Guidance on Profile Building, Upskilling & Experience Sharing from On-campus Placements	5 th August 2022	
5.	Virtual Guidance, Online Mentoring & Interaction for Placement Process of ICICI Lombard	17 th September 2022	
6.	Career Opportunities, Experience Sharing & How To Prepare for Challenges Ahead (by Alumni)	8 th August 2022	
7.	Webinar on Aerial Robotics by Prof. Martin Saska of Czech Technical University (CTU), Prague	9 th March 2023	



Fr. Agnel Ashram, Bandstand, Bandra (W), Mumbai – 400050.
www.frcrce.ac.in / +91-22-67114111 / ecs.frcrce@gmail.com



FR. CONCEICAO RODRIGUES COLLEGE OF ENGINEERING



Department of Electronics & Computer Science in
association with Training & Placement Office

Preparatory Guidance & Online Mentoring for Studying Abroad in IRELAND

A SPHERE (Supporting Placements & Higher
Education Requirements in Engineering) Initiative
by Department of Electronics & Computer Science

PIYUSH A. RUMAO

Data Scientist at FBD Insurance, Dublin
Formerly, Data Analyst at Deutsche Bank, Dublin



M.S. (Data Science) – 2018
University College Dublin (UCD)
Dublin, Republic of Ireland



B.E. (Computer Engineering) – 2016
Fr. Conceicao Rodrigues College of
Engineering, Bandra (W), Mumbai

*Live online from
Ireland on Friday
17th June 2022
06:00 pm IST by
Google Meet*



Interested students progressing to B.E. (Semester VII) across all
branches need to register on <https://forms.gle/QJQM3pDdSYHNfzqw7>
after which Google Meet link will be forwarded to email ID provided

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A Supporting Placements & Higher Education Requirements in Engineering (SPHERE) Activity

On

PREPARATORY GUIDANCE & ONLINE MENTORING FOR STUDYING ABROAD IN IRELAND

By

Piyush Anasta Rumao

**Data Scientist at FBD Insurance, Dublin (Ireland)
M.S. (Data Science), University College Dublin (UCD)**

Jayen Modi

**Assistant Professor & Placements Coordinator
Department of Electronics & Computer Science**

Friday 17th June 2022

06:00 pm IST onwards on Google Meet (online)


In Association with Training & Placement Office (TPO)

Academic Year 2022 – 2023



S.P.H.E.R.E. ACTIVITY REPORT (STUDY ABROAD)

1. Overview & Details

Name of SPHERE Activity	Preparatory Guidance & Online Mentoring for Studying Abroad in Ireland	
Venue / Location	Online on Google Meet (https://meet.google.com/bpr-joji-mrz) by Electronics & Computer Science Department, Fr. Conceicao Rodrigues College of Engineering	
Activity Co-ordinator	Jayen Modi, Assistant Professor, Department of Electronics & Computer Science & In-charge Public Relations, Fr. Conceicao Rodrigues College of Engineering	
Day, Date & Timings	Friday 17 th June 2022 from 06:00 pm IST onwards	
Key Resource Persons / Subject Expert Speakers	Mr. Piyush Anasta Rumao Data Scientist at FBD Insurance, Dublin (Ireland) M.S. (Data Science) from University College Dublin (Ireland)	
Aim & Objective of the SPHERE Activity	Organized in association with the training & placement office (TPO), this activity is expected to provide students credible information on all related aspects of studying abroad. With the resource person being an alumni of the college itself, this will help students define their future academic trends & career prospects. The selection or choice of any course or a college / university or country depends completely upon the interest, field of study & technological domain in which the student would like to work in the future or study further. In order to help the students, make an informed decision about the same & also to chart out a suitable roadmap, this orientation programme is arranged. This is not only the ultimate opportunity to know all about studying abroad approach but also to get their doubts / queries / questions cleared about the same.	
Contents of SPHERE Activity on Preparatory Guidance & Online Mentoring for Studying Abroad (Ireland)	<ul style="list-style-type: none"> • Why to study abroad ? • What to keep in mind before deciding to study abroad • Overview of entrance tests – GRE / TOEFL / IELTS • Building a good profile & resume • How to arrange for funding / finances to study abroad • Ireland as a study abroad destination • Choice of courses, study programmes & career options 	
Intended Audience	All interested students across all branches / disciplines (preferably in final year)	

2. About the Resource Person / Speaker

Mr. Piyush Anasta Rumao is an alumni of Fr. Conceicao Rodrigues College of Engineering, having graduated from the Department of Computer Engineering in 2016. He worked as a freelancer on several projects based on data science & artificial intelligence; apart from honing his skills in machine learning & other aspects of programming during that period. He was also involved with a few internships. He graduated with a master's degree in data science from the prestigious University College Dublin (UCD) at Dublin, Ireland in 2018. After post-graduation he joined the Deutsche Bank, Dublin (Ireland) as a data analyst for a year before moving to FBD Insurance, Dublin (Ireland) as a data scientist. Piyush wholeheartedly accepted the invitation of department & TPO cell to guide prospective students in mentoring them for studying abroad. He also pitched for Ireland as a favorable study abroad destination.

3. Description of Activity

The study abroad activity was in two distinct halves – the first was where Piyush introduced the online audience about various aspects one has to keep in mind about studying abroad. He suggested to introspect first the actual need to obtain an international education & later on went about how to prepare for the same. He recommended building a good profile first, backed up by a strong resume where the academic strengths of the candidate are highlighted along with any other professional certifications. He briefly spoke about preparing for various entrance tests such as GRE, IELTS & TOEFL. He advised prospective candidates on how this study abroad experience would be different as compared to the one they were undergoing in their home country. He stressed on finding a particular course of interest for the students, later on a university & then the country to pursue it rather than selecting a country first for international education. He then ended the first half of the session by explaining various funding / financing options for studying abroad. Thus the first half was a highly generalized or a common approach in discussed various nuances for studying abroad.

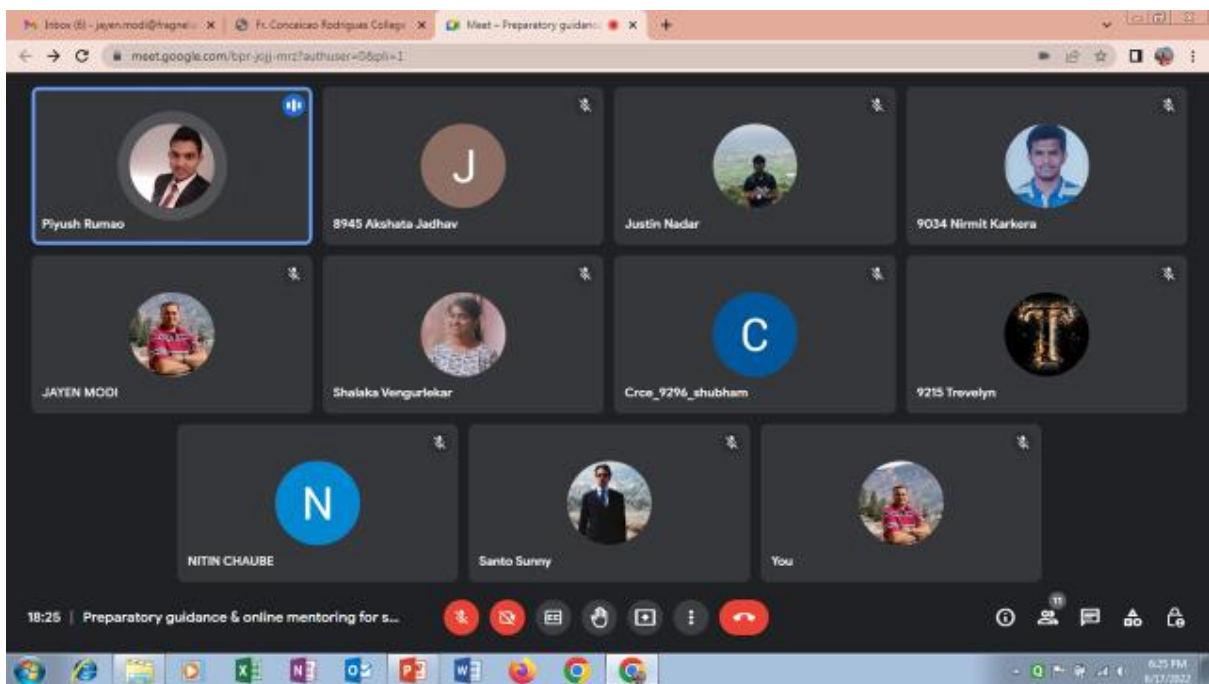
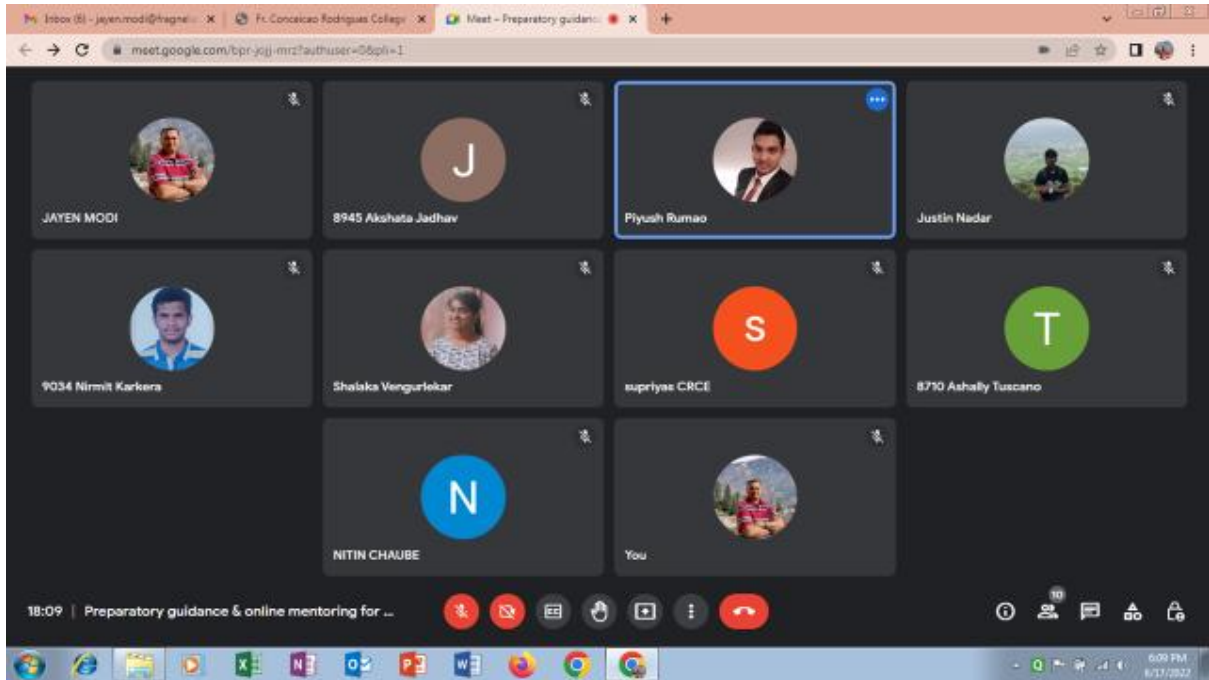
The second half of the session was focused purely on pursuing a post-graduation education in the Republic of Ireland. Here, Piyush took up Ireland as a case study & explained his own decision behind choosing the country for his further studies. He explained various geo-political factors, economic indicators & other future prospects which influenced his decision. He briefly described some of the top-most Irish universities & gave a brief description on their programmes offered. He zeroed down on his choice of a particular course at a particular university of his choice. He also explained the Irish education system in detail & described the various career options one can pursue after finishing their studies. Finally, it was time for an interactive question & answer session. Overall, the event was received extremely positively by the participating student audience. They appreciated the department along with the training & placement office for an insight towards the right approach for an education abroad.

4. Outcome of Activity

Traditionally, students have been aware of 'conventional' study abroad destinations such as United States of America (USA), United Kingdom (UK), Canada, Australia etc. among the selected few. This session opened the eyes of the students to a whole new country – Ireland with a new world of opportunities opening up for them to study, work & maybe settle in the near future. Prospective students were also made aware of Ireland's world-class educational system, with few of their universities featuring in the top 50 ranked in the world. With a discussion on types of courses & degrees also being described in detail, students now had another option to choose Ireland as a preferred study abroad destination.

An informal feedback taken online after the session was that students had almost very little to no idea about Ireland as a study abroad destination. Many found this completely refreshing in terms of the variety offered since the destination was completely new for them. A lot of them even appreciated the fact that one of the alumni actually taking out time from his busy schedule was guiding them online. It acted like a confidence building measure for them since Piyush had passed out successfully & was also well-placed in a reputed organization in Ireland.

5. Pictures of Activity



Jayen Modi

Jayen Modi
Assistant Professor & Coordinator – Training & Placement,
Department of Electronics & Computer Science (ECS),
Fr. Conceicao Rodrigues College of Engineering (Fr. CRCE)

A SPHERE Activity on Preparatory Guidance for Study Abroad & Online Mentoring in Ireland 5
Friday 17th June 2022 06:00 pm IST onwards on Google Meet (online) for Academic Year 2022 – 2023

Fr. CRCE
e-mail



Jayen Modi Fr. CRCE <jayen.modi@fragnel.edu.in>

Invitation to address students (online) for study abroad options in Ireland

3 messages

Jayen Modi Fr. CRCE <jayen.modi@fragnel.edu.in>

9 June 2022 at 22:48

To: piyushrumao@gmail.com

Cc: tpo <tpo@frcrce.ac.in>, "TPO - Fr. CRCE, Bandra" <tpo@fragnel.edu.in>, "CRCE, sapna" <sapna@fragnel.edu.in>, sapna@frcrce.ac.in

Dear Piyush Rumao

As per our telephonic discussion today late evening, kindly accept our invitation to address prospective students for study abroad options in Ireland - online on Google Meet. We are planning this event under the training & placement office (TPO) along with SPHERE (Supporting Placements & Higher Education Requirements in Engineering) - an initiative of the Department of Electronics & Computer Science.

We are extremely hopeful your valuable inputs will certainly go a long way in helping them out to start their preparations for studying abroad. The session can be in two parts - the first part can be a general introduction about what any student has to prepare themselves with in case they want to study abroad. The other half can be your own experiences about studying in Ireland - the Irish education system, courses, colleges/universities, internship & job opportunities etc. Kindly share your journey with University College Dublin (UCD) from where you've completed your master's degree in Data Science.

Please let know if we can fix this session on (next) Friday 17th June 2022 at 06:00 pm IST. Kindly acknowledge by replying to this email. The Google Meet link will be forwarded to you in advance. Thank you for your time & efforts.

Regards,

Jayen Modi
Assistant Professor & Coordinator - Training & Placements
Department of Electronics & Computer Science
Fr. Conceicao Rodrigues College of Engineering

Piyush Rumao <piyushrumao@gmail.com>

9 June 2022 at 22:58

To: "Jayen Modi Fr. CRCE" <jayen.modi@fragnel.edu.in>

Cc: tpo <tpo@frcrce.ac.in>, "TPO - Fr. CRCE, Bandra" <tpo@fragnel.edu.in>, "CRCE, sapna" <sapna@fragnel.edu.in>, sapna@frcrce.ac.in

Hi Sir,

Thank you for the invitation, I acknowledge my attendance.

Kind Regards,
Piyush

[Quoted text hidden]

Jayen Modi Fr. CRCE <jayen.modi@fragnel.edu.in>

9 June 2022 at 23:25

To: Piyush Rumao <piyushrumao@gmail.com>

Cc: tpo <tpo@frcrce.ac.in>, "TPO - Fr. CRCE, Bandra" <tpo@fragnel.edu.in>, "CRCE, sapna" <sapna@fragnel.edu.in>, sapna@frcrce.ac.in

Dear Piyush

Thank you very much for the prompt reply. We can fix the date & time as (next) Friday 17th June 2022, 06:00 pm IST onwards.
Looking forward to meeting you online.

P. S. Kindly convey our warm regards to Mr. Anasta Rumao sir.

[Quoted text hidden]

Contact

www.linkedin.com/in/piyush-rumao-65a954104 (LinkedIn)

Top Skills

Alteryx
Hive
Apache Impala

Languages

English (Full Professional)
Hindi (Full Professional)
Marathi (Native or Bilingual)

Certifications

Build and Secure Networks in Google Cloud
Perform Foundational Data, ML, and AI Tasks in Google Cloud
Data Science on Google Cloud: Machine Learning
Engineer Data in Google Cloud
Explore Machine Learning Models with Explainable AI

Honors-Awards

RESEARCH SCHOLARSHIP
UCD GLOBAL SCHOLARSHIP

Publications

Super Learner versus Deep Neural Network
Detect Malicious Executable(AntiVirus) Data Set
Internet of things security Perspective
Easy Server Indexing
Investigating the Risks Associated With COVID-19 Using Topic Modeling

Piyush Rumao

Senior Data Scientist
Blackrock, County Dublin, Ireland

Summary

Data Scientist with experience in delivering valuable data-driven solutions and business insights through leveraging the power of analytics. Experienced working in Agile Scrum Methodology. Expertise in natural language processing and developing Machine Learning algorithms to derive business insights. Proficient in data storytelling, business intelligence, and predictive modeling.

Experience

FBD Insurance
Data Scientist
April 2022 - Present (11 months)
Dublin, County Dublin, Ireland

Deutsche Bank
2 years 4 months
Associate Data Analytics Analyst
May 2020 - January 2022 (1 year 9 months)
County Dublin, Ireland

- Deriving business insights using Client Analytics and Operational Reference Data for Data Labs and CIO (Chief Information Office).

Data Scientist
October 2019 - May 2020 (8 months)
County Dublin, Ireland

- Building Artificial Intelligence based solutions for Data insights and innovation labs.

Altada Technology Solutions Limited
1 year 3 months
Data Scientist
September 2018 - August 2019 (1 year)
County Dublin, Ireland

- Part of the Core Data Science team to build a GDPR Compliance tool comprising Advance Analytics using ML and NLP techniques.
- Developed a Predictive algorithm for Document Classification into the appropriate department's and enforcing document retention policy.
- Worked on data scalability & quick document retrieval using Elasticsearch.
- Implemented several NLP use-cases involving Named Entity Extraction, Sentiment Analysis & Text Summarization.
- Brainstorming to develop a custom based ETL pipeline for extracting data from multiple data sources using python connectors.
- Experienced in working on Agile Scrum Methodology.

Data Science Intern

June 2018 - August 2018 (3 months)

Dublin, Leinster, Ireland

Part of the Data Science Team and working on creating products for regulatory compliance area -

GDPR: General Data Protection Regulation and Data privacy.

- Worked on Altdexer a GDPR Compliance tool for indexing Large Unstructured Data.
- Worked on Optical Character Recognition (OCR) for recognizing text in a scanned document.
- Automated Email Routing into specific department using Artificial Neural Network.
- Worked on implementation of the Machine Translation models using Deep Learning techniques like LSTM and Sequence to Sequence modeling (example: Converting the French Language to English).

Stratex Advisory and Consulting

Data Science Researcher

October 2017 - June 2018 (9 months)

County Dublin, Ireland

- As part of the Enterprise Ireland Innovation Partnership Program, I worked on:

1] Creating a repository for funds domiciled in Ireland and provided an API endpoint for end clients.

2] Developed an AI-Based tool to efficiently review and analyze the given organization's Prospectus document.

University College Dublin

Tutor

October 2017 - May 2018 (8 months)

County Dublin, Ireland

Taught Following Modules for Undergraduate Computer Science Department:

- 1] Data Science in Practise
- 2] Robotics
- 3] Operating Systems
- 4] Formal Foundations
- 5] Computer Science for Engineers
- 6] Introduction to Computer Architecture

Ramdevarmutt Trust

Full-stack Developer

January 2017 - August 2017 (8 months)

Bangalore, India

- Developed the website and integrated it with a volunteer managing system.
- Created an admin interface to keep website updated with various social events.

ApnaBookWala

Full-stack Developer

May 2016 - January 2017 (9 months)

Mumbai Area, India

- Developed backend logic for handling cart data, orders, and return of products.
- Developed a recommender system to improve sales along with customer satisfaction.

Education

University College Dublin

Master's degree, Data science · (2017 - 2018)

Fr Conceicao Rodrigues College of Engineering Band Stand Bandra
(West) Mumbai 400 050

Bachelor of Engineering (BE), Computer Science · (2012 - 2016)



FR. CONCEICAO RODRIGUES COLLEGE OF ENGINEERING



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Supporting Placements & Higher Education Requirements in Engineering (SPHERE)

SPHERE aims to create a complete 360° support system in becoming a single point of contact in the Department for addressing all student related queries of career counseling, academic guidance, placements, higher education, developing the relevant skill sets etc. along with providing suitable resources in order to achieve them.

OBJECTIVES

- ❖ To guide students in selecting the career path of their choice
- ❖ To equip students with the necessary skill sets as per requirements
- ❖ To apprise students about higher education prospects
- ❖ To make students professionally mature & employable graduates
- ❖ To improve soft skills & communication abilities of students
- ❖ To help bridge the gap between industry & graduate professionals

FUNCTIONS

- ❖ Addressing students & their parents about various career options
- ❖ Helping students identify their area of interest during graduation
- ❖ Guiding students to help them focus on building right kind of skills
- ❖ Providing information on higher education option in India & abroad
- ❖ Supporting students during the on-campus placement season
- ❖ Organizing interactive seminars, webinars, workshops & any other relevant activities for benefit & enrichment of students

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**A Supporting Placements & Higher Education
Requirements in Engineering (SPHERE) Activity**

On

INTRODUCTION & ORIENTATION TO S.P.H.E.R.E.

By

Dr. Sapna Prabhu

**Professor & Head of Department (HOD),
Department of Electronics & Computer Science**

Prof. Vaibhav Godbole

**Assistant Professor & Placement Coordinator,
Department of Electronics & Computer Science**

Prof. Jayen Modi

**Assistant Professor & Placement Coordinator,
Department of Electronics & Computer Science**

Wednesday 27th July 2022 @ 01:30 pm IST

3rd Floor, Department Classroom No. 306

T.E. (Electronics & Computer Science) – Semester V

Academic Year 2022 – 2023



INTRODUCTION & ORIENTATION OF S.P.H.E.R.E.

1. Overview & Details

Name of SPHERE Activity	Supporting Placement & Higher Education Requirement in Engineering (SPHERE) Activity on Orientation & Introduction to SPHERE itself
Venue / Location	Classroom No. 306, 3 rd Floor, Electronics & Computer Science Department, Fr. Conceicao Rodrigues College of Engineering (Fr. CRCE)
Activity Co-ordinator	Prof. Vaibhav Godbole & Prof. Jayen Modi Assistant Professors, Department of Electronics & Computer Science (ECS) Fr. Conceicao Rodrigues College of Engineering (Fr. CRCE)
Day, Date & Timings	Wednesday 27 th July 2022 from 01:30 pm onwards
Key Resource Persons / Subject Expert Speakers	Dr. Sapna Prabhu, Professor & Head of Department (HOD), Department of Electronics & Computer Science (ECS) Fr. Conceicao Rodrigues College of Engineering (Fr. CRCE)
Aim & of SPHERE Activity	SPHERE aims to create a complete 360° support system in becoming a single point of contact in the Department of Electronics & Computer Science (ECS) for addressing all student related queries of career counseling, academic guidance, placements, higher education, developing all the relevant skill sets etc. along with providing suitable resources in order to achieve them.
Proposed Objectives of SPHERE Activity	<ul style="list-style-type: none"> • To guide students in selecting the career path of their choice • To equip students with the necessary skill sets as per requirements • To apprise students about higher education prospects • To make students professionally mature & employable graduates • To improve soft skills & communication abilities of students • To help bridge the gap between industry & graduate professionals
Proposed Functions of SPHERE Activity	<ul style="list-style-type: none"> • Addressing students & their parents about various career options • Helping students identify their area of interest during graduation • Guiding students to help them focus on building right kind of skills • Providing information on higher education option in India & abroad • Supporting students during the on-campus placement season • Organizing interactive seminars, webinars, workshops & other relevant activities for benefit & enrichment of students

2. Description of Activity

The Department of Electronics & Computer Science at Fr. Conceicao Rodrigues College of Engineering for the academic year of 2021 – 2022 initiated a programme viz. supporting placements & higher education requirements in engineering (SPHERE) as an outreach to all the students of T.E. (Electronics & Computer Science) – Semester VI. The activity was carried out to let the students from the department know that whatever was possible for addressing all student related queries of career counseling, academic guidance, placements, higher education, developing all the relevant skill sets etc. along with providing suitable resources in order to achieve them. In the last academic year a total of five (05) activities were conducted under the SPHERE initiative.

Prof. Jayen Modi formally introduced the notion behind SPHERE for the department & highlighted various arenas which the students needed to focus upon be it higher education or placements or entrepreneurship etc. The primary goal was to ensure all students were readily equipped with the necessary skills in terms of technical & managerial in order to face the dynamic challenges of the outside world.

Prof. Vaibhav Godbole shared few instances from his experience in the industry where it is imperative to have very high professional standards. Apart from all the usual qualities of hard work, dedication, meeting deadlines etc. it is also very important to have a strong profile backed by a good resume. Post-pandemic with the entire ecosystem changed the way the world conducts business, it becomes necessary for every individual to have a professional approach. SPHERE tries to achieve that by providing opportunities to interested students in order to maximize their interaction with outside world.

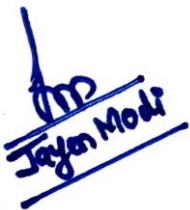
Dr. Sapna Prabhu added her own experience & enriched the SPHERE introductory session by quoting several examples & case studies in which various students over the years have suitably groomed themselves. Some have even sought mentoring / counseling / guidance on various career paths based on their domain or area of interest. Overall the session was highly enriching since the students were assured of maximum possible help from the department to assist them.

3. Screenshot Images of SPHERE Activity



FR. CONCEICAO RODRIGUES COLLEGE OF ENGINEERING
Department of Electronics & Computer Science (ECS)




Jayen Modi

Jayen Modi
Assistant Professor & Coordinator – Training & Placement,
Department of Electronics & Computer Science (ECS),
Fr. Conceicao Rodrigues College of Engineering (Fr. CRCE)

A SPHERE Activity on Introduction & Orientation of SPHERE for T.E. (ECS) – Semester V 5
Wednesday 27th July 2022 at 01:30 pm IST in Classroom No. 306 for Academic Year 2022 – 2023



FR. CONCEICAO RODRIGUES COLLEGE OF ENGINEERING



Electronics & Computer Science

Experience Sharing of Hackathons & Competitive Coding – Guidance for Proficiency in Programming

A SPHERE (Supporting Placements & Higher Education Requirements in Engineering) Initiative
by Department of Electronics & Computer Science



Max Johnson has multiple offers from Oracle, TCS & Reliance Jio



Friday 5th August 2022 @ 09:30 am IST
**Classroom No. 307, 3rd Floor, Department of
Electronics & Computer Science (ECS)**

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A Supporting Placements & Higher Education Requirements in Engineering (SPHERE) Activity

On

EXPERIENCE SHARING OF HACKATHONS & COMPETITIVE CODING – GUIDANCE FOR PROFICIENCY IN PROGRAMMING

By

Marippanvru Max Johnson
B.E. (Electronics & Computer Science)



Friday, 5th August 2022
**Classroom No. 306, 3rd Floor, Department of
Electronics & Computer Science (ECS)**

A SPHERE Activity for Experience Sharing of Hackathons & Competitive Coding – Guidance for Proficiency
in Programming on Friday 5th August 2022 from 09:30 am to 11:30 am



SPHERE Activity for Competitive Coding & Hackathons

1. Overview & Details

Name of SPHERE Activity	Experience Sharing for Hackathons & Competitive Coding – Guidance for Proficiency in Programming
Venue / Location	Classroom No. 307, 3 rd Floor, Department of Electronics & Computer Science
Activity Co-ordinator	Jayen Modi, Assistant Professor, Department of Electronics & Computer Science & In-charge Public Relations, Fr. Conceicao Rodrigues College of Engineering
Day, Date & Timings	Friday 5 th August 2022 from 09:30 am IST onwards
Key Resource Persons / Subject Expert Speakers	Marippanvru Max Johnson B.E. (Electronics & Computer Science) – Semester VII Multiple Placement Offers from Oracle, TCS & Reliance Jio
Aim & Objective of the SPHERE Activity	The journey of thousand miles begins with a single step – goes a popular Chinese proverb. It is imperative to start early preparations right from second year (S.E.) itself & invest in developing a requisite set of skills so that the actual placement process becomes fruitful. Organized in association with the training & placement office (TPO), the goal was to invite few final years placed student with multiple offers to address the students of second year (S.E.) regarding the knowledge & skill sets to be developed inform them about the expected selection process. The placed students discussed in detail about their own preparation as prospective candidates, enriching the targeted audience (prospective students) about the various aspects of the placement selection process. Many myths were busted & several questions were answered pertaining to whatever doubts students had. Primary objective was to prepare the students in advance with additional training on the specific company-related matters (with inputs received from the placed students giving a large coverage from their experience). It motivated the students & gave them a really good insight as to what they should prepare for.
Contents of SPHERE Activity on Preparatory Guidance on Profile Building, Upskilling & Experience Sharing	<ul style="list-style-type: none"> • How to start preparations for placement processes • Analyzing job descriptions to understand skill sets required • Preparation of good resume & professional etiquettes • Access to competitive coding platforms
Intended Audience	All interested students wishing to opt for on-campus placement process

A SPHERE Activity for Experience Sharing of Hackathons & Competitive Coding – Guidance for Proficiency in Programming on Friday 5th August 2022 from 09:30 am to 11:30 am

2. Activity Pictures (Images)



FR. CONCEICAO RODRIGUES COLLEGE OF ENGINEERING
Department of Electronics & Computer Science (ECS)



A SPHERE Activity for Experience Sharing of Hackathons & Competitive Coding – Guidance for Proficiency in Programming on Friday 5th August 2022 from 09:30 am to 11:30 am

3. Description of Activity

The activity was broadly divided into two main parts – Prof. Jayen Modi briefed the audience about the objective of the session, describing the importance to start preparing for the placement processes from an early stage. He discussed the overall on-campus placement process & the requirements for the same. He also urged students to be proactive in establishing a network of like-minded professionals over LinkedIn, preparing a one-page professional resume & finally honing their technical skills along with soft-skills to increase their chances of getting placed. He stressed on the fact that with a huge majority of incoming companies being from the IT industry or service based, it was imperative that all the interested students need to be extremely good at competitive coding.

The second half was handled by Marippanvru Max Johnson from B.E. (ECS) who has multiple offers under his belt from TCS, Oracle & Reliance Jio. He began by informing the students about the importance of academic subjects like programming courses, database management systems, discrete structures & data structures. With coding being one of the most important assessment parameters, he advised all the students to achieve fluency by participating in various hackathons & other competitive coding competitions. Max also suggested doing courses from reputed online platforms such as Udemy, Coursera, Uncademy, NPTEL etc. Furthermore, pursuing an internship which puts the knowledge of the student to test, can also be of a great help. He signed off by suggesting some reputed competitive coding online platforms such as :-

- Project Euler
- Hacker Rank
- Hacker Earth
- Code Chef
- Git Hub
- SPOJ etc.

All inputs given by the undersigned & Max Johnson were well appreciated by the audience. They were informed to approach the undersigned or Max himself in case of any doubts or queries regarding the preparation. They were also urged to maintain a healthy pointer average (CGPA) by performing academically well in all the semesters throughout their course of study. It now remains a matter to see how much they are able to take it forward.



Jayen Modi

Assistant Professor,
Department of Electronics & Computer Science,
Fr. Conceicao Rodrigues College of Engineering

* * * * *



FR. CONCEICAO RODRIGUES COLLEGE OF ENGINEERING



Electronics & Computer Science

Preparatory Guidance on Profile Building, Upskilling & Experience Sharing from Campus Placements

A SPHERE (Supporting Placements & Higher Education Requirements in Engineering) Initiative by Department of Electronics & Computer Science

ARNAV CHAWATHE



DOLAT CAPITAL



SAHIL MAHIMKAR



carwale

SHIBU MATHEW



quantiphi



MAX JOHNSON



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CONSULTANCY
SERVICES

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LIFE

Friday 5th August 2022 @ 02:30 pm IST

**Classroom No. 306, 3rd Floor, Department of
Electronics & Computer Science (ECS)**

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**Fr. Agnel Ashram, Bandstand, Bandra (W), Mumbai – 400050.
www.frcrce.ac.in / +91-22-67114111 / ecs.frcrce@gmail.com**

A SPHERE Activity for Preparatory Guidance on Profile Building, Upskilling & Experience Sharing from Campus Placements on Friday 5th August 2022 from 02:30 pm to 04:30 pm

**A Supporting Placements & Higher Education
Requirements in Engineering (SPHERE) Activity**

On

**PREPARATORY GUIDANCE ON PROFILE BUILDING,
UPSKILLING & EXPERIENCE SHARING FROM
ON-CAMPUS PLACEMENTS**

By

**Students of B.E. (Electronics & Computer
Science) Obtained On-campus Placements**

Chawate Arnav (Dolat Capital Markets Pvt. Ltd.)

Mahimkar Sahil (Placed at CarWale.com)

Shibu Mathew (Quantiphi Data Analytics Pvt. Ltd.)

Max Johnson (Oracle, TCS & Reliance Jio)

Friday, 5th August 2022

**Classroom No. 306, 3rd Floor, Department of
Electronics & Computer Science (ECS)**

**In Association with
Training & Placement Office (TPO)**



SPHERE Activity for On-campus Placements Guidance

1. Overview & Details

Name of SPHERE Activity	Preparatory Guidance on Profile Building, Upskilling & Experience Sharing from On-campus Placement Process
Venue / Location	Classroom No. 306, 3 rd Floor, Department of Electronics & Computer Science
Activity Co-ordinator	Jayen Modi, Assistant Professor, Department of Electronics & Computer Science & In-charge Public Relations, Fr. Conceicao Rodrigues College of Engineering
Day, Date & Timings	Friday 5 th August 2022 from 02:30 pm IST onwards
Key Resource Persons / Subject Expert Speakers	Chawate Arnav (Placed at Dolat Capital Markets Pvt. Ltd.) Shibu Mathew (Placed at Quantiphi Data Analytics Pvt. Ltd.) Mahimkar Sahil (Placed at Carwale.com) Max Johnson (Placed at TCS, Oracle & Reliance Jio)
Aim & Objective of the SPHERE Activity	Organized in association with the training & placement office (TPO), the goal was to invite final year students already placed in the particular company to address the students & inform them about the expected selection process. The placed students discussed, in detail about their own experiences as prospective candidates, enriching the targeted audience (prospective students) about the various aspects of the placement selection process. Many myths were busted & several questions were answered pertaining to whatever doubts students had. Primary objective was to prepare the students in advance with additional training on the specific company-related matters (with inputs received from the placed students giving a large coverage from their experience). It motivated the students & gave them a really good insight as to what they were expected to face for the placement drive.
Contents of SPHERE Activity on Preparatory Guidance on Profile Building, Upskilling & Experience Sharing	<ul style="list-style-type: none"> • Introduction to on-campus placement process • Knowing eligibility criterion & job description • Preparation of good resume & professional etiquettes • Dolat Capital process discussion by Arnav Chawate • Quantiphi process discussion by Shibu Mathew • Carwale process discussion by Sahil Mahimkar • TCS, Oracle & Reliance Jio process discussion by Max Johnson
Intended Audience	All interested students wishing to opt for on-campus placement process

A SPHERE Activity for Preparatory Guidance on Profile Building, Upskilling & Experience Sharing from Campus Placements on Friday 5th August 2022 from 02:30 pm to 04:30 pm

2. Activity Pictures (Images)



Arnav Chawate discusses his placement experience of Dolat Capital Markets Pvt. Ltd.



Shibu Mathew discusses his placement experience for Quantiphi Data Analytics Pvt. Ltd.

A SPHERE Activity for Preparatory Guidance on Profile Building, Upskilling & Experience Sharing from Campus Placements on Friday 5th August 2022 from 02:30 pm to 04:30 pm

FR. CONCEICAO RODRIGUES COLLEGE OF ENGINEERING
Department of Electronics & Computer Science (ECS)



Sahil Mahimkar discusses his placement experience for Carwale.com



Max Johnson discusses his placement experience for Reliance Jio, TCS & Oracle

**A SPHERE Activity for Preparatory Guidance on Profile Building, Upskilling & Experience Sharing from
Campus Placements on Friday 5th August 2022 from 02:30 pm to 04:30 pm**

FR. CONCEICAO RODRIGUES COLLEGE OF ENGINEERING
Department of Electronics & Computer Science (ECS)

3. Description of Activity

The activity was broadly divided into two main parts – Prof. Jayen Modi briefed the audience about the objective of the session, describing the importance to start preparing for the placement processes from an early stage. He discussed the overall on-campus placement process & the requirements for the same. He also urged students to be proactive in establishing a network of like-minded professionals over LinkedIn, preparing a one-page professional resume & finally honing their technical skills along with soft-skills to increase their chances of getting placed.

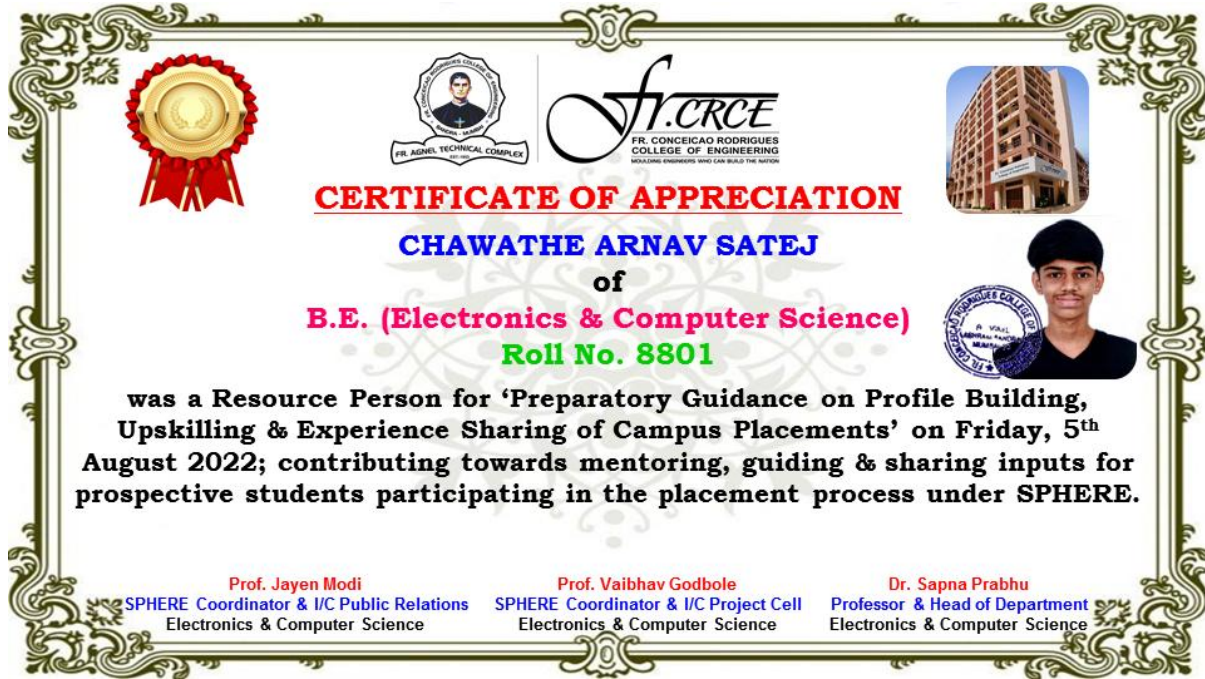
The second half brought the placed students in front of the audience. Arnav Chawate & Sahil Mahimkar described their preparations for Dolat Capital Markets Pvt. Ltd. & Carwale.com respectively. Both companies required a very high level of competitive coding skills, which was explained to the audience by Arnav & Sahil. Next came Shibu Mathew with his experience sharing on Quantiphi Data Analytics Pvt. Ltd. He started by explaining the job profile / job description (JD) to the audience & gave them insights on how to select one if a particular company offers multiple roles. He proceeded with his description of the overall placement experience, giving several suggestions on the way. The session concluded with Max Johnson, holder of three placement offers from Reliance Jio, Oracle & TCS briefing the audience & informing them to focus on regular academic subjects as first step towards preparation for the same. His talk was very well appreciated by the audience as they were introduced to three different placement process; from which they were able to pick up the common factors & at the same time also identify different processes.





4. Felicitation of Students



A SPHERE Activity for Preparatory Guidance on Profile Building, Upskilling & Experience Sharing from Campus Placements on Friday 5th August 2022 from 02:30 pm to 04:30 pm



FR. CONCEICAO RODRIGUES COLLEGE OF ENGINEERING
Department of Electronics & Computer Science (ECS)





CERTIFICATE OF APPRECIATION
CHAWATHE ARNAV SATEJ
of
B.E. (Electronics & Computer Science)
Roll No. 8801

was a Resource Person for 'Preparatory Guidance on Profile Building, Upskilling & Experience Sharing of Campus Placements' on Friday, 5th August 2022; contributing towards mentoring, guiding & sharing inputs for prospective students participating in the placement process under SPHERE.



Prof. Jayen Modi
SPHERE Coordinator & I/C Public Relations
Electronics & Computer Science

Prof. Vaibhav Godbole
SPHERE Coordinator & I/C Project Cell
Electronics & Computer Science

Dr. Sapna Prabhu
Professor & Head of Department
Electronics & Computer Science





CERTIFICATE OF APPRECIATION
MAHIMKAR SAHIL PRALHAD
of
B.E. (Electronics & Computer Science)
Roll No. 8815

was a Resource Person for 'Preparatory Guidance on Profile Building, Upskilling & Experience Sharing of Campus Placements' on Friday, 5th August 2022; contributing towards mentoring, guiding & sharing inputs for prospective students participating in the placement process under SPHERE.



Prof. Jayen Modi
SPHERE Coordinator & I/C Public Relations
Electronics & Computer Science

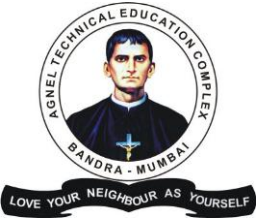
Prof. Vaibhav Godbole
SPHERE Coordinator & I/C Project Cell
Electronics & Computer Science

Dr. Sapna Prabhu
Professor & Head of Department
Electronics & Computer Science


Jayen Modi

Jayen Modi
Assistant Professor,
Department of Electronics & Computer Science,
Fr. Conceicao Rodrigues College of Engineering

A SPHERE Activity for Preparatory Guidance on Profile Building, Upskilling & Experience Sharing from
Campus Placements on Friday 5th August 2022 from 02:30 pm to 04:30 pm



FR. CONCEICAO RODRIGUES COLLEGE OF ENGINEERING



Department of Electronics & Computer Science in
Association with Training & Placement Office

**Virtual Preparatory Guidance &
Online Mentoring for Placement in**



**A SPHERE (Supporting Placements & Higher
Education Requirements in Engineering) Initiative
by Department of Electronics & Computer Science**

SAKSHI DAVE

**Technology Manager – Cloud at ICICI Lombard
B.E. (Electronics Engineering) – Batch of 2021**



HRUSHIKESH KUWLEKAR

**Technology Manager – Cloud at ICICI Lombard
B.E. (Electronics Engineering) – Batch of 2021**



Interested students in B.E. (Semester VII) across all branches appearing for ICICI Lombard placement process need to register on <https://forms.gle/QJQM3pDdSYHNfzqw7> after which Google Meet link will be forwarded to email ID provided

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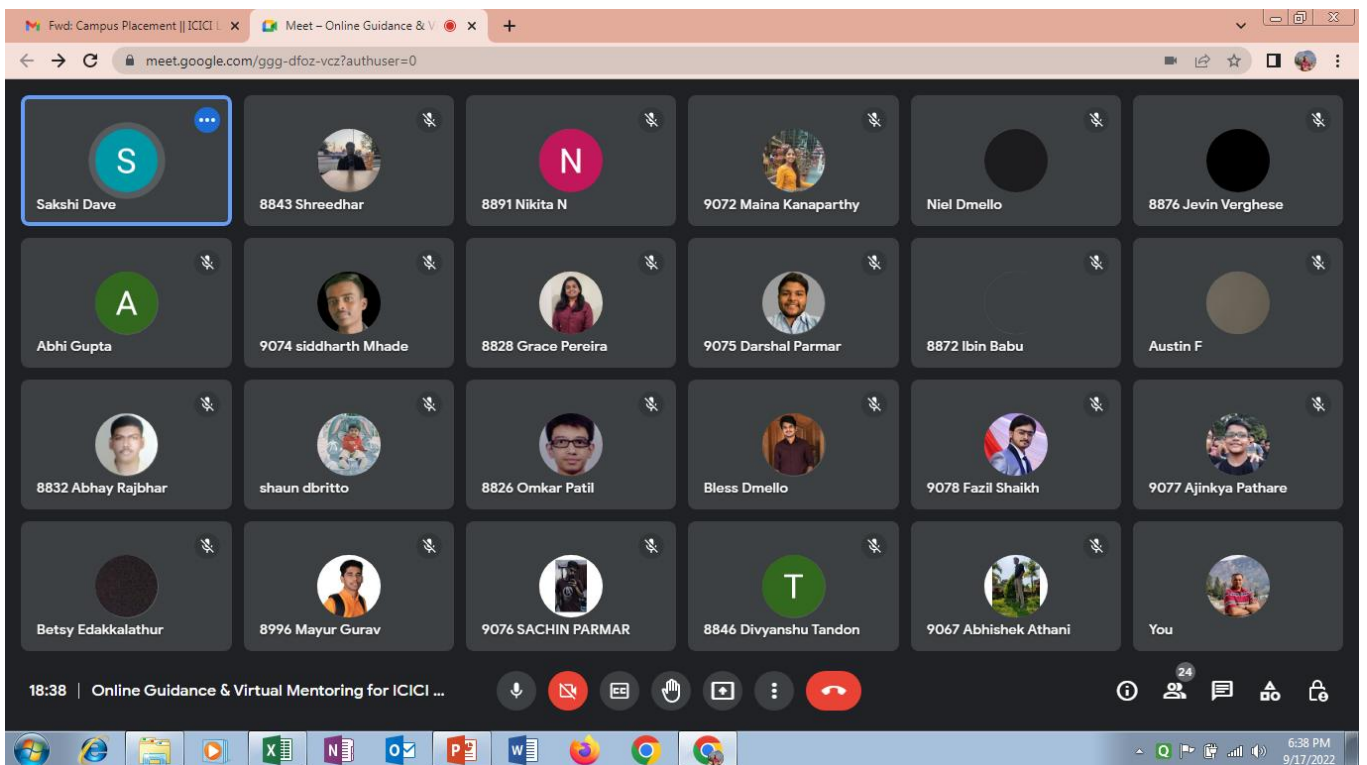
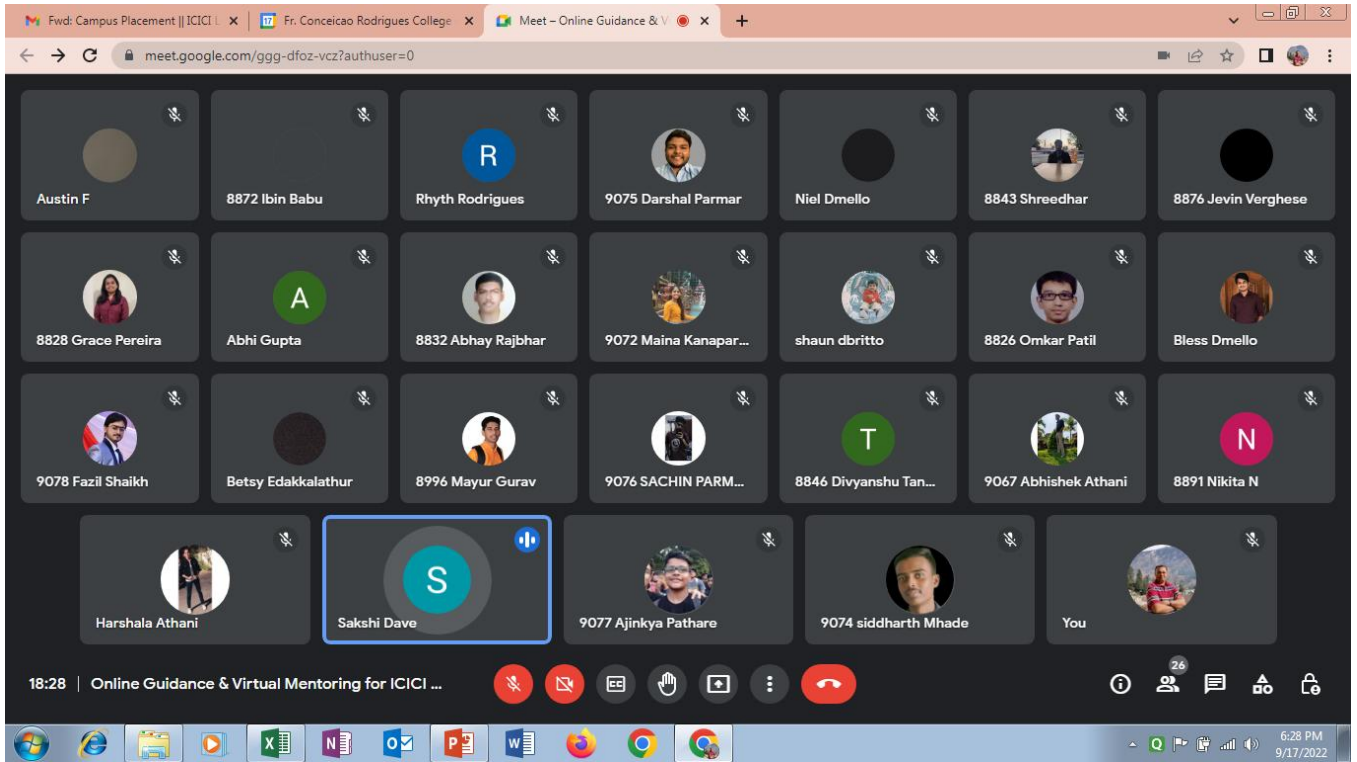
VIRTUAL GUIDANCE & ONLINE INTERACTION MEETING

1. Overview & Details

Name of SPHERE Activity	Virtual Guidance Session & Online Interaction Meeting regarding the placement process for ICICI Lombard under SPHERE by Electronics & Computer Science
Venue / Location	Online on Google Meet (https://meet.google.com/ggg-dfoz-vcz)
Activity Co-ordinator	Jayen Modi Assistant Professor, Department of Electronics & Computer Science (ECS) Fr. Conceicao Rodrigues College of Engineering (Fr. CRCE)
Day, Date & Timings	Saturday, 17 th September 2022 from 06:15 pm IST onwards
Key Resource Persons / Industry Speakers	<ul style="list-style-type: none"> • Sakshi Dave – Technology Manager (Cloud) • Hrushikesh Kuwlekar – Technology Manager (Cloud)
Objectives of the Virtual Guidance Online Session & Interaction Meeting	<p>The lockdown enforced by the Indian Government on account of the COVID-19 pandemic changed entire hiring ecosystem. It brought the whole process online right from registration to the pre-placement talks followed by the aptitude & the technical tests, culminating with a virtual interview session either on Zoom or Google Meet or MS Teams. Keeping this practice in mind, the Department of Electronics & Computer Science under the SPHERE initiative; took the initiative to hold a virtual guidance session & preparatory online meeting session for certain select companies. Their goal was to invite the alumni already placed in the particular company to address the students & inform them about the expected selection process. The alumni discussed, in detail about their own experience as prospective candidates, enriching students about the various aspects of the placement selection process. Many myths were busted & several questions were answered pertaining to whatever doubts students had. Primary objective was to prepare the students in advance with additional training on the specific company-related matters (with inputs received from the alumni giving a large coverage from their experience). It motivated the students & gave them a really good insight as to what they were expected to face for the placement drive.</p>
Practical Outcome / Results of Activity	<p>From the department of electronics & computer science, following three students bagged offers from ICICI Lombard as technology manager (cloud) :-</p> <ul style="list-style-type: none"> • Benhur Falcao • Darshal Parmar • Mayur Gurav

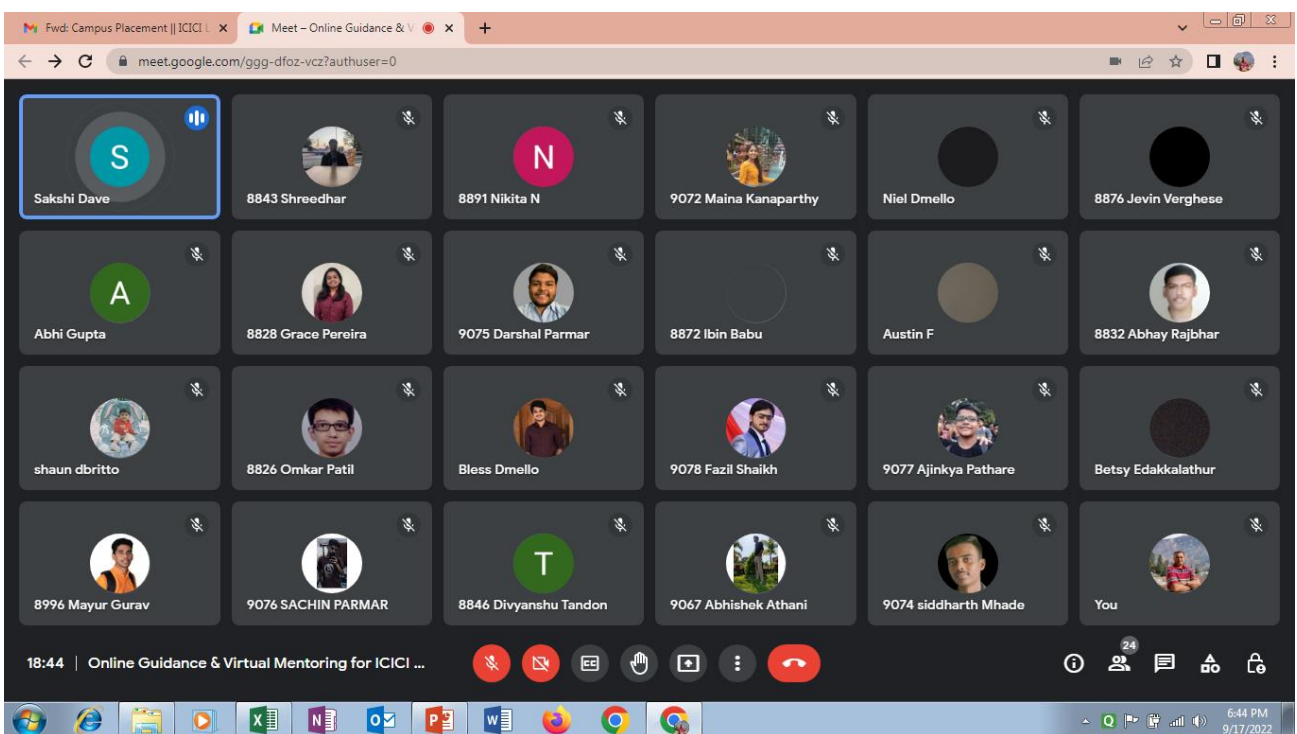
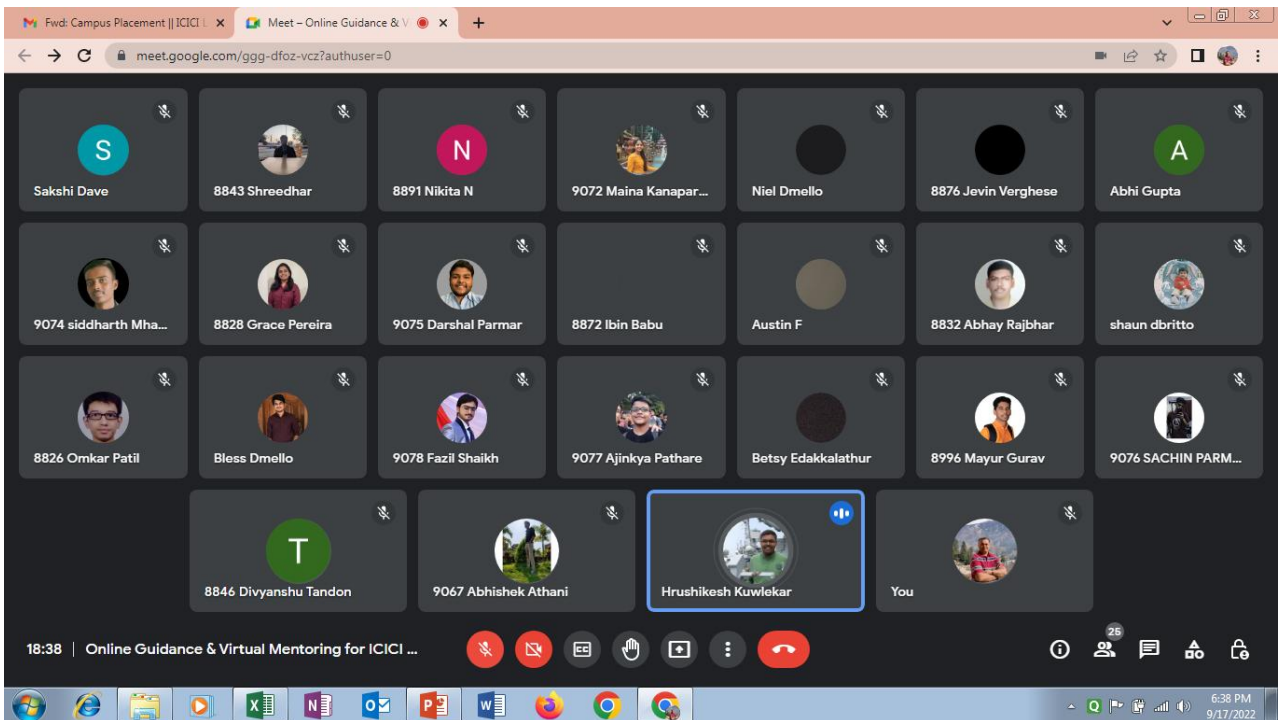
Virtual Guidance Session & Online Interaction Meeting regarding the placement process for ICICI Lombard under SPHERE initiative on Saturday, 17th September 2022 from 06:15 pm IST onwards

2. Screenshots (Images) of Activity



Virtual Guidance Session & Online Interaction Meeting regarding the placement process for ICICI Lombard under SPHERE initiative on Saturday, 17th September 2022 from 06:15 pm IST onwards

FR. CONCEICAO RODRIGUES COLLEGE OF ENGINEERING
Department of Electronics & Computer Science (ECS)



Jayen Modi

Jayen Modi
Assistant Professor,
Department of Electronics & Computer Science
Fr. Conceicao Rodrigues College of Engineering

Virtual Guidance Session & Online Interaction Meeting regarding the placement process for ICICI Lombard under SPHERE initiative on Saturday, 17th September 2022 from 06:15 pm IST onwards

Fr. CRCE
e-mail



Jayen Modi Fr. CRCE <jayen.modi@fragnel.edu.in>

Online mentoring & guidance for ICICI Lombard placement process

2 messages

Jayen Modi Fr. CRCE <jayen.modi@fragnel.edu.in>

9 September 2022 at 05:14

To: hrushikeshkuwlekar@gmail.com, Sakshi Dave <sakshidave1603@gmail.com>

Cc: "TPO - Fr. CRCE, Bandra" <tpo@fragnel.edu.in>, tpo <tpo@frcrce.ac.in>, heenak.pendhari@frcrce.ac.in, "heenak.pendhari CRCE" <heenak.pendhari@fragnel.edu.in>

Dear Sakshi & Hrushikesh

Greetings on behalf of the Training & Placement Office at Fr. Conceicao Rodrigues College of Engineering ! Hope both of you are doing well & are in good health.

We have an upcoming placement drive by ICICI Lombard for the position of Cloud Engineer with expected CTC of 5.8 LPA. As of now student details are sought from those who are eligible.

We humbly request both of you for your online presence in conducting a virtual placement & guidance session given the fact that you are currently at ICICI Lombard in the same job profile. Your invaluable inputs to all prospective candidates would be highly appreciated. It would definitely help them in preparing for the same. A fixed date & time would be conveyed to you later, which would be preferably in the late evening hours.

Being a formal invitation & process, kindly confirm your acknowledgement by replying to this email. Looking forward to hearing from you.

Thanks & regards.

Sakshi Dave <sakshidave1603@gmail.com>

13 September 2022 at 22:14

To: "Jayen Modi Fr. CRCE" <jayen.modi@fragnel.edu.in>

Cc: hrushikeshkuwlekar@gmail.com, "TPO - Fr. CRCE, Bandra" <tpo@fragnel.edu.in>, tpo <tpo@frcrce.ac.in>, heenak.pendhari@frcrce.ac.in, "heenak.pendhari CRCE" <heenak.pendhari@fragnel.edu.in>

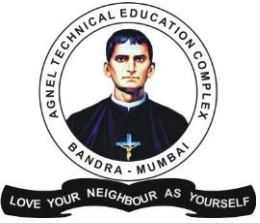
Dear Sir,

Thank you so much for giving us the opportunity to mentor our juniors. Both me and hrushikesh are delighted and would like to confirm our presence for this event. We are available on 17th of September that is coming Saturday at 6 pm.

Thanks and Regards,

Sakshi Dave

[Quoted text hidden]



FR. CONCEICAO RODRIGUES COLLEGE OF ENGINEERING



DEPARTMENT OF ELECTRONICS & COMPUTER SCIENCE

**Congratulations to all
Selected Students in
the Placement Drive of**



21st September 2022

Academic Year of 2022 – 2023



**FALCAO
BENHUR**

**Technology
Manager
(Cloud)**



**PARMAR
DARSHAL**

**Technology
Manager
(Cloud)**



**GURAV
MAYUR**

**Technology
Manager
(Cloud)**

@ecs.frcrce



@ecs-frcrce



@ecs.frcrce



@ecs_frcrce



@ecs-frcrce



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www.frcrce.ac.in / +91-22-67114111 / hodecs@frcrce.ac.in

GUEST LECTURE SESSION BY INDUSTRY EXPERT

On

Career Opportunities, Experience Sharing & How To Prepare for Challenges Ahead



Monday 8th August 2022

for

**T.E. (Electronics & Computer Science) – Semester V
Academic Year (A.Y.) 2022 – 2023**



REPORT ON GUEST LECTURE BY INDUSTRY EXPERT

1. Overview & Details

SPHERE Guest Lecture Title	Career Opportunities for Engineering Graduates, Experience Sharing & how to shape oneself for the challenges ahead
Venue / Location	Classroom No. 306, 3 rd Floor, Department of Electronics & Computer Science Fr. Conceicao Rodrigues College of Engineering
Activity Co-ordinator	Jayen Modi, Assistant Professor Electronics Engineering Department Fr. Conceicao Rodrigues College of Engineering
Day, Date & Timings	Monday, 8 th August 2022 from 10:00 pm to 12 noon
Resource Person / Guest Lecture & Affiliation	Mr. Sanjay Noronha (Alumni Batch of 1997) Product Lead, Google Nest Wi-Fi at Google, Alphabet Inc. (San Jose, California, USA)
Objective of Guest Lecture	The objective of the guest lecture was to share with students the experience of an engineering graduate who had already traversed their path – first as a student, then as an intern, later on as a fresher & now as an experienced professional. It was planned to inspire & motivate the students by having an informal discussion as to how any typical engineering student needs to be ever-ready to adapt to the changing dynamics of the industry & outside world thereby succeeding in professional life.
Contents of Guest Lecture	<ul style="list-style-type: none"> • How supply chain, operations & planning works • Mapping these skills with one's area of expertise • How to upgrade & equip oneself • Knowledge of finance, marketing & other non-technicalities • Leadership, teamwork & organizational structure
Relevance to Programme Outcomes (PO)	<ul style="list-style-type: none"> • PO-6 :- Engineer & Society • PO-8 :- Ethics • PO-9 :- Individual & Team Work • PO-10 :- Communication • PO-11 :- Project Management & Finance • PO-12 :- Lifelong Learning

2. Guest Lecture by Mr. Sanjay Noronha (Industry Resource Person)

Mr. Sanjay Noronha is an alumnus from 1997 batch of the Electronics Engineering Department. He shared his rich experience in working first for various organizations & then later on for Google. Over a career spanning a little above 20 years; at various designations & roles such as an associate, an analyst, a manager & now senior manager overseeing responsibilities in IT audit, governance, technologies etc. in supply chain & operations planning. A mechanical engineer by profession, he introduced students to application of core engineering & its associated technologies thereby explaining how they were contributing to growth of organization, apart from being instrumental backbone in day-to-day operations. He began with an introduction of himself & how he shaped, re-shaped & acquired technical & managerial skills all along his career. He stressed on aspects such as applying reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues & consequent responsibilities relevant to the professional engineering practice. He also addressed engineering and management principles and applying these to one's work, as member and leader in team, to manage projects and in multidisciplinary environments. Overall he also briefed to communicate effectively on complex engineering activities with the engineering community and with society at large, such as being able to comprehend and write effective reports & design documentation, make effective presentations and give and receive clear instructions. His informal & friendly interaction was very well appreciated by all the students.

His talk concluded by urging all students to 'think out of the box', following the news & other media to be more in touch with the current events & to be a part of any professional organization of their choice by applying for its membership. He stressed that engineering education doesn't just end when any student graduates with a first-class bachelor's degree; but instead the lessons of life just begin after that. He signed off with motivating students by giving his own successes & failures in professional life & how he was able to overcome them. Vision, patience, hard-work, dedication & honesty were attributed by him as the five major pillars of any engineering graduate.

3. Activity Pictures of Guest Lecture by Mr. Sanjay Noronha (Industry Resource Person)



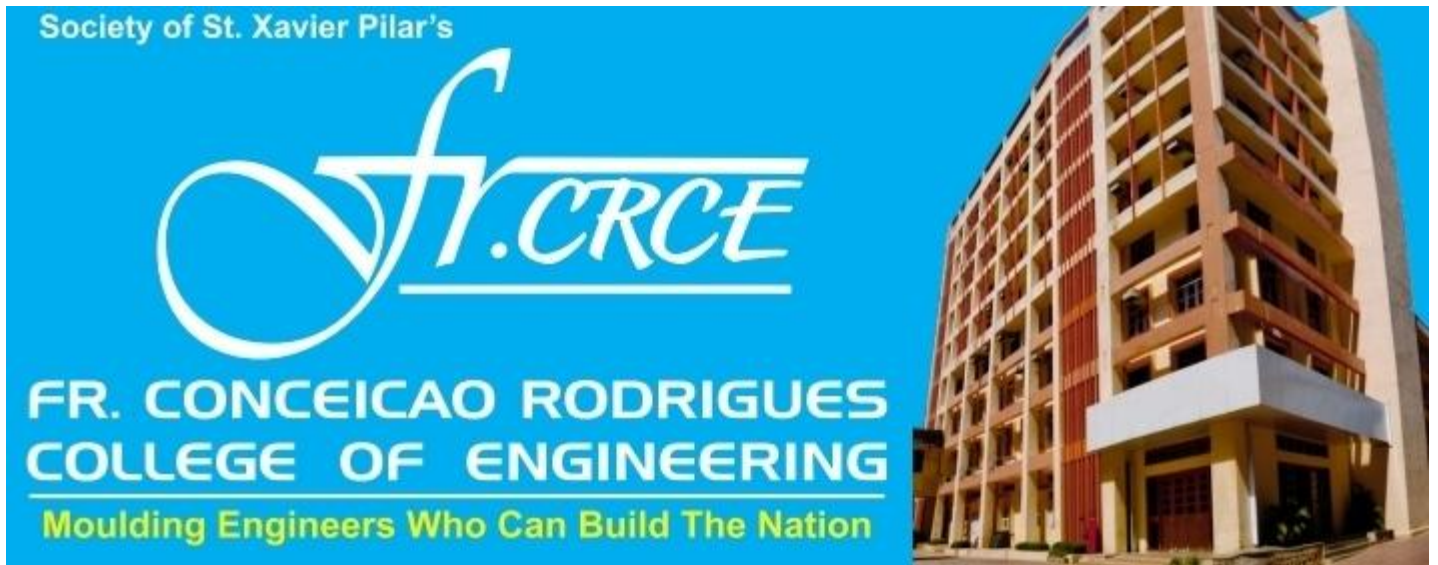
FR. CONCEICAO RODRIGUES COLLEGE OF ENGINEERING
Department of Electronics & Computer Science




Jayen Modi

Jayen Modi
Assistant Professor,
Department of Electronics & Computer Science
Fr. Conceicao Rodrigues College of Engineering

Report on Guest Lecture by Industry Expert – Mr. Sanjay Noronha (Alumni Batch of 1997) 4
Product Lead, Google Nest Wi-Fi at Google, Alphabet Inc. (San Jose, California – USA)



DEPARTMENT OF ELECTRONICS & COMPUTER SCIENCE

Monday 8th August 2022

To
Mr. Sanjay Noronha,
Product Lead, Google Nest Wi-Fi
San Jose, California, United States of America (USA)

Dear Sir

We express our heartfelt gratitude for gracing our campus & department to interact with the students. As a resource person, your guest lecture topic on 'product design' was extremely appreciated by the audience; as a matter of which in fact many of them got thinking about taking it as a career option.

As an initiative by the Department of Electronics & Computer Science, SPHERE (Supporting Placement & Higher Education Requirements in Engineering) initiative also aims to introduce to students about various career options in latest emerging areas of science & technology with user interface, user experience (UI/UX) & product design being one of them.

Once again we acknowledge this invaluable contribution by you in addressing our students despite your busy schedule & other commitments.

Regards,

Dr. Sapna U. Prabhu
Professor & Head of Department,
Department of Electronics & Computer Science,
Fr. Conceicao Rodrigues College of Engineering.



FR. CONCEICAO RODRIGUES COLLEGE OF ENGINEERING



Department of Electronics & Computer Science

Online Guest Lecture by Resource Person for Bridging the
Curriculum Gap; on the topic of :-

'Deployment of Teams for Cooperating Aerial Vehicles in Real World Environment (Aerial Robotics)'



MULTI-ROBOT
SYSTEMS
GROUP



MARTIN SASKA

Head & Senior Researcher at Multi-robot Systems (MRS) Group,
Department of Cybernetics, Faculty of Electrical Engineering,
Czech Technical University (CTU) in Prague, Czech Republic



Prague, Czech Republic



9th March 2023



02:00 pm IST onwards



Google Meet



Open to all students of Electronics &
Computer Science across S.E., T.E. & B.E.
(please check email for Google Meet link)

@ecs.frcrce

@ecs-frcrce

@ecs.frcrce

@ecs_frcrce

@ecs-frcrce



Fr. Agnel Ashram, Bandstand, Bandra (W), Mumbai – 400050.
www.frcrce.ac.in / +91-22-67114111 / ecs.frcrce@gmail.com



REPORT ON GUEST LECTURE BY ACADEMIC EXPERT

1. Overview & Details

Guest Lecture Title	Deployment of Teams for Cooperating Aerial Vehicles in Real World Environment	
Venue / Location	Google Meet Platform (Online) https://meet.google.com/dmm-ohgd-eyn	
Activity Organizer & Co-ordinator	Jayen Modi, Assistant Professor Department of Electronics & Computer Science Fr. Conceicao Rodrigues College of Engineering	
Day, Date & Timings	Thursday, 9 th March 2023 – 01:30 pm to 3:30 pm IST	
Brief Background of Guest Speaker / Resource Person	Prof. Martin Saska Head & Senior Researcher at Multi-robot systems (MRS) Group Department of Cybernetics, Faculty of Electrical Engineering Czech Technical University (CTU) in Prague, Czech Republic	
Intended / Target Audience	All interested students from second year (S.E.), third year (T.E.) & final year (B.E.) from the Department of Electronics & Computer Science (ECS) including those from the minor/inter-disciplinary programme in Robotics.	
Introductory Abstract of the Guest Lecture (Talk)	Using large teams of Micro Aerial Vehicles (MAVs) in the real-world (outdoor & indoor) environments without any precise external localization or motion capture systems is a challenging task. In this talk, I will present the latest results of our endeavor towards fully autonomous compact flocks of MAVs with onboard artificial intelligence, which was achieved by the Multi-Robot Systems group at the Czech Technical University in Prague. Stabilization, control & motion planning techniques for steering swarms & formations of unmanned MAVs will be discussed. I will be talking about using MAVs for indoor documentation of large historical objects (cathedrals) by formations of cooperating MAV, where one MAV carries a camera & its neighbors carry light sources with the possibility to set relative angle between the camera axis & lights as required. A cooperative manipulation of large objects by pair of MAV developed for the international MBZIRC competition & inspection of underground mines for DARPA competition will be presented. Finally, fully autonomous flying robot, Eagleone hunting for unauthorized drones will be shown.	

2. Brief Introduction (Biography) of Speaker

Prof. Martin Saska received his MSc. degree at Czech Technical University in Prague, 2005 & his Ph.D. degree at University of Wuerzburg, Germany, within the Ph.D. program of Elite Network of Bavaria, 2009. Since 2009, he is a research fellow at Czech Technical University in Prague, where he founded & heads the Multi-robot Systems lab (<http://mrs.felk.cvut.cz/>) & co-founded Center for Robotics and Autonomous Systems with more than 70 researchers cooperating in robotics (<https://robotics.fel.cvut.cz/cras/>). He was a visiting scholar at University of Illinois at Urbana-Champaign, USA in 2008 & at University of Pennsylvania, USA in 2012, 2014 & 2016, where he worked with Vijay Kumar's group within GRASP lab. He is the author or the co-author of more than 150 publications in peer-reviewed conferences with multiple best paper awards and more than 50 publications in impacted journals, including IJRR, AURO, JFR, ASC, EJC, with over 5200 citations indexed by Scholar and H-index 41. His team won multiple robotic challenges in MBZIRC 2017, MBZIRC 2020 & DARPA SubT competitions as given below :-

- <http://mrs.felk.cvut.cz/projects/mbzirc>
- <http://mrs.felk.cvut.cz/mbzirc2020>
- <http://mrs.felk.cvut.cz/projects/darpa>

3. Brief Description of Guest Lecture (Talk)

The undersigned introduced the academic resource person Prof. Martin Saska to the online audience & explained the objective of having arranged this session. The activity was initially conceived as bridging the curriculum gap for the subject of Robotics (ECC801) for B.E. (Electronics & Computer Science) – Semester VIII where students would be introduced to real-life applications of robots. This was later extended to beyond syllabus activity (BSA) in which an expert in the field (Prof. Martin Saska) gave a practical demonstration about the ever-emerging field of 'aerial robots' through his online talk. The primary objective of this activity was to enlighten prospective students about the aerial robotics & take it up as a possible future career option.

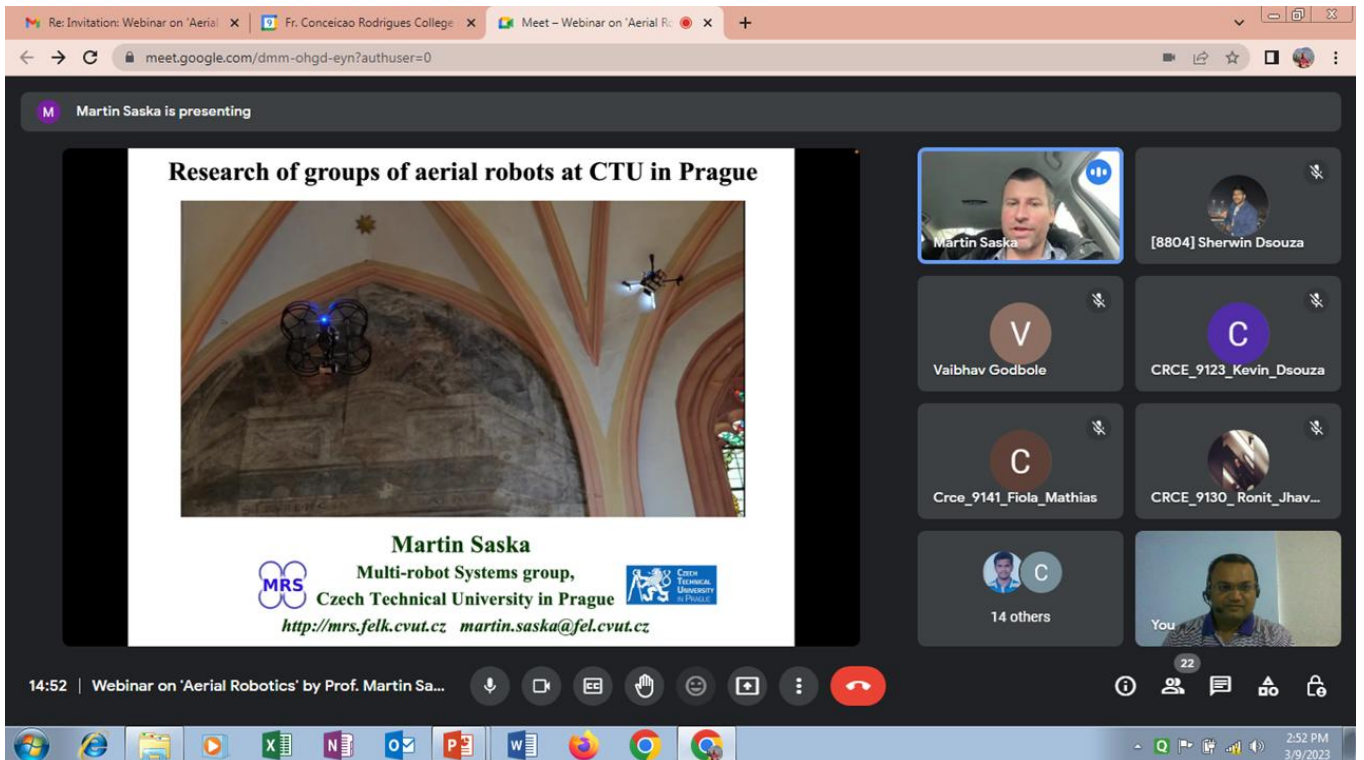
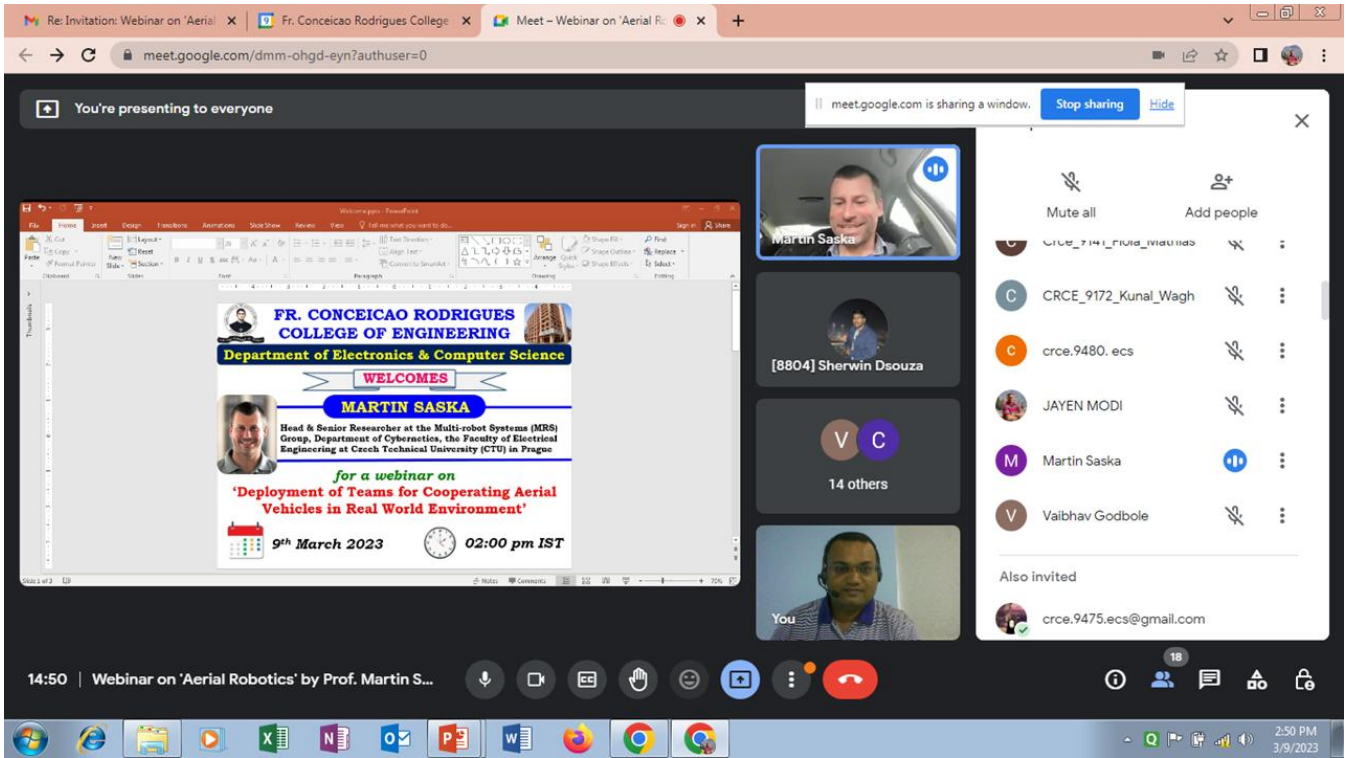
Prof. Martin Saska then introduced his research team on aerial robotics to the online audience. He proceeded further by giving the inspiration to study swarm intelligence. His premise was based on the findings & observations from nature about the behavior of swarm intelligence. He discussed the architecture of unmanned aerial vehicles (UAV) describing its software & hardware components. He then explained nature inspired swarming in environments with obstacles & later on proceeded to demonstrate practical, real-life applications such as :-

- Documentation of dark areas of large historical buildings
- Discharging of fire extinguishing capsules
- Aerial cognitive integrated multi-task robotic system with extended operation range & safety
- Inspection of infrastructure such as power cables & overhead equipment (OHE)

The main highlight of the webinar was demonstration of several ongoing projects, research work, design & applications of their in-house MRS UAV. Numerous videos, animations & graphical interfaces were shown to demonstrate to the viewer about the system's background, internal & external infrastructure, the operating principle, mode of operation & other important aspects.

The webinar ended with an exchange of acknowledgements – Prof. Jayen Modi heartily acknowledged the invaluable time spent by Prof. Martin Saska in engaging the online audience with aerial robotics; Prof. Martin Saska thanked the online audience for their patience & asking him thought-provoking questions as necessary. He officially invited the staff & students to visit Prague, Czech Republic for the IEEE RAS Summer School on Multi-Robot Systems scheduled at the Czech Technical University (CTU) in Prague between 3rd to 7th July 2023.

4. Screenshot Images (Pictures) of Guest Lecture



Long-term motivation: Swarms of micro aerial vehicles in forest

- Swarming in **GNSS denied space**
- No direct communication**
- Strictly **decentralized system**
- Scalable, large, anonymous groups**
- Unknown environment
- Small low-cost aerial platforms
- High density of obstacles**
- MAVs are well suited for such task

Petracek Bioinspiration & Biomimetics 2020, Ahmad ICRA 2021, Krizek ICUAS 2022, Saska ISRR 2017, Saska AURO 2017, Brandner ECOMR 2017, Saska JINT 2016, Saska ICUAS 2015, Saska ICRA 2014, Saska LJRR 2014

<http://mrs.fel.cvut.cz/> martin.saska@fel.cvut.cz

MRS UAV System - Control Architecture

- Mission & Navigation - provides high-level reference (position + heading, 4D trajectory)
- Reference (MPC) tracker - feasible feedforward reference for the feedback controllers
- Reference (MPC or SE(3)) controller - estimates control disturbances and outputs attitude rate command to Pixhawk
- Attitude rate controller - PID loop on attitude rate, creates control commands to individual motors
- Odometry & Localization - UAV position (velocity) based on sensory data, examples: Laser SLAM, Visual SLAM, Optic Flow, ...
- State estimator - a bank of estimators and filters produces a set of hypotheses (estimates) of the UAV state; switching between sensor configurations in flight
- Open source - **>600 registered active users**

Tomas Baca, Matej Petrlik, Matous Vrba, Vojtech Spurny, Robert Penicka, Daniel Hert and Martin Saska. The MRS UAV System: Pushing the Frontiers of Reproducible Research, Real-world Deployment, and Education with Autonomous Unmanned Aerial Vehicles. JINT 102(26):1-28, May 2021.

desired reference $\tau_d, \dot{\tau}_d$ full-state reference x_d ω_d UAV plant

Mission & navigation $\tau_d, \dot{\tau}_d$ Reference tracker x_d Reference controller τ_d Attitude rate controller τ_d UAV actuators Onboard sensors

initialization only x, R, ω τ_d IMU State estimator Odometry & localization

Documentation of dark areas of large historical buildings by a formation of unmanned aerial vehicles

vs.

<http://mrs.felk.cvut.cz/> martin.saska@fel.cvut.cz

15:07 | Webinar on 'Aerial Robotics' by Prof. Martin Sa... 23

3:07 PM 3/9/2023

DOFEC - Discharging Of Fire Extinguishing Capsules

- Autonomous fast fire extinguishment in aboveground floors
- Fire detection using an onboard thermal camera and its localization by a depth camera
- Precise discharge of ampoules with a fire extinguisher from an onboard launcher

The designed UAV The Bonpet ampoule The ampoule trajectory

The target fire

<http://mrs.felk.cvut.cz/> martin.saska@fel.cvut.cz

15:28 | Webinar on 'Aerial Robotics' by Prof. Martin Sa... 21

3:28 PM 3/9/2023

FR. CONCEICAO RODRIGUES COLLEGE OF ENGINEERING
Department of Electronics & Computer Science

AERIAL-CORE: AERIAL COgnitive integrated multi-task Robotic system with Extended operation range and safety

H2020 ICT-10-2019-2020: Robotics Core Technology

- 9 universities - key UAV groups in Europe, 6 strong European end-users
- Complete inspection and maintenance of large linear infrastructures
- Long range (Several kilometres) inspection of the infrastructure
- Maintenance activities based on aerial manipulation
- **Aerial co-working safely and efficiently helping human workers in inspection**

Uzakov 2020 ICUAS, Silano 2021 RAL, Silano 2021 Automatica

15:34 | Webinar on 'Aerial Robotics' by Prof. Martin Sa...

Daniel Heřt
HW Engineer
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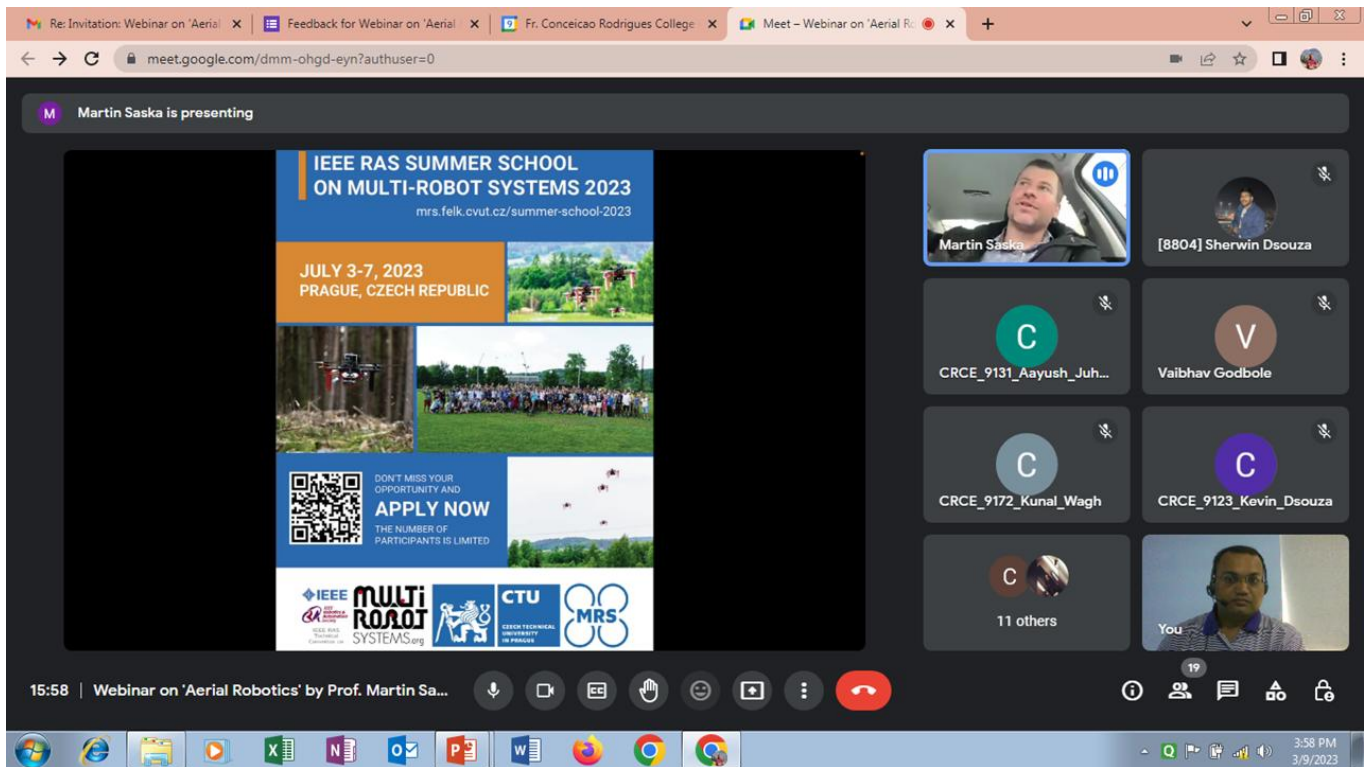
~10 different platforms ~50 aerial vehicles

D. Heřt, et al. MRS Modular UAV Hardware Platforms for Supporting Research in Real-World Outdoor and Indoor Environments. In 2022 International Conference on Unmanned Aircraft Systems (ICUAS), 2022.

The diagram illustrates the UAV hardware architecture, showing the flow of data and commands between various components: RTK Basestation, RTK GPS, Xbee radio, Xmega Board, Onboard PC, UAV Autopilot, GPS with Compass, Gripper, Rangefinder, Camera, Stereo camera, 2D laser range scanner, and UAV motors with ESC.

15:00 | Webinar on 'Aerial Robotics' by Prof. Martin S...

FR. CONCEICAO RODRIGUES COLLEGE OF ENGINEERING
Department of Electronics & Computer Science



5. Acknowledgements & Conclusions

The undersigned would like to thank Dr. Sapna Prabhu, Professor & Head of Department at Electronics & Computer Science (ECS) for extending all help & support needed in organizing this webinar which would not have been possible without the commitment shown by Prof. Martin Saska himself. Despite having a packed schedule & given the time difference of 4½ hours between India & the Czech Republic; his presentation was an academic treat to attend. Also acknowledgements to all participating students for taking a keen interest in the webinar & attending it diligently. The webinar did achieve its objective of introducing aerial robotics to the online audience & apprising them of various practical applications of robotics in real-life environment.

Links to slides (PDF) :-

https://drive.google.com/file/d/1MWNr7wVTiuHvVEBZ4aKaJtUdM7DrCu8z/view?usp=share_link

Links to videos :-

https://docs.google.com/presentation/d/1dTdjpySsFGpYc_ZWKwO_ALGMeOJZv-N/edit?usp=share_link&oid=113451887084981785988&rtpof=true&sd=true

Jayen Modi
Assistant Professor
Department of Electronics & Computer Science
Fr. Conceicao Rodrigues College of Engineering



FR. CONCEICAO RODRIGUES COLLEGE OF ENGINEERING



Department of Electronics & Computer Science

Monday 13th February 2023

To

Prof. Martin Saska
Head, Senior Researcher
Multi-robot Systems (MRS) Group,
Czech Technical University (CTU) at Prague

Subject :- Invitation Letter for Guest Lecture as Resource Person (online)

Dear Prof. Martin Saska

As per your email conversation with Prof. Jayen Modi few days back, I extend a warm welcome to you in advance for your august presence in the Department of Electronics & Computer Science at Fr. Conceicao Rodrigues College of Engineering at Mumbai, India. I understand he has invited you online for a guest lecture as resource person primarily to address students on various advances & applications in robotics.

We look forward to your online session scheduled on Thursday 9th March 2023 at 2:00 pm IST onwards as per your quoted convenience. From our end, we will encourage the participation of students from second year, third year & final year engineering along with staff members who would be available during that time of the day.

It is expected that your talk will not only bridge the curriculum gap between academia, industry & research but will also enlighten our students about various research activities, projects & other avenues at CTU Prague. If possible we can discuss some kind of future collaboration between our respective institutions.

Thanking you & regards,

Dr. Sapna U. Prabhu
Professor & Head of Department,
Electronics & Computer Science (ECS),
Fr. Conceicao Rodrigues College of Engineering (Fr. CRCE)

@ecs.frcrce



@ecs-frcrce



@ecs.frcrce



@ecs_frcrce



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Fr. Agnel Ashram, Bandstand, Bandra (W), Mumbai – 400050.
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Fr. CRCE
e-mail



Jayen Modi Fr. CRCE <jayen.modi@fragnel.edu.in>

2023 IEEE RAS Summer School on Multi-Robot Systems in Prague, July 3.-7. - early registration discount

10 messages

Martin Saska <martin.saska@fel.cvut.cz>
Reply-To: Martin Saska <martin.saska@fel.cvut.cz>
To: jayen.modi@fragnel.edu.in

13 February 2023 at 18:08

Dear ,

I hope you are doing well.

As in previous years, we are organizing an IEEE RAS MRS summer school on multi-robot systems in Prague this summer (July 3.-7., 2023) -

<http://mrs.felk.cvut.cz/summer-school-2023/>

Also this year, our main mission is to enable the networking of young scientists working in similar fields of research. Last year 240 students from the MRS field attended the school, although almost nobody was from Asia due to Covid (in the pre-covid years it was 40% from Asia). Now we are receiving many applications from Asia finally, so I expect a really fruitful event. To enable the participation of students with a lower budget we will keep last year's fees for early participants despite the huge inflation we have in the country. So it would be great if you could announce March 7, 2023 as the deadline for the early registration discount to your students/colleagues. In case they would have a problem with on-time registration, please let me know and we will keep the lower fees for them even a few weeks later.

As you may know, this Summer School is proper for last year bachelor's students, master's students, and PhD students, but we have also a lot of young scientists from industry. Mainly the planned HW experiments with a fleet of real UAVs realized by students during the Summer School practicals could be within their interest.

You can find more details about the Summer School in the call for participation below this email. Thank you.

Best Regards,

Martin

Dr. Martin Saska

Head of Multi-robot Systems Group
Faculty of Electrical Engineering
Czech Technical University in Prague
Karlovo náměstí 13
CZ 121 35 [Prague 2](#)

Office: E120

Voice: +420-776241932

<http://mrs.felk.cvut.cz/>

<http://mrs.felk.cvut.cz/people/martin-saska>

Following the great success of Summer Schools in Prague, 2019, 2020 & 2022 the MRS RAS technical committee is organising 2023 IEEE RAS Summer School on Multi-Robot Systems <http://mrs.felk.cvut.cz/summer-school-2023/> which will be held again at the campus of Czech Technical University located at the heart of the historic city of Prague.

The Summer School aims to promote the newest achievements in multi-robot systems and swarm robotics to students, academic researchers, and industrial practitioners to enable putting systems of cooperating robots into practice. The content of the Summer School will be focused but not limited to systems of cooperating aerial vehicles. The topics addressed by well-recognised experts in the field of Multi-Robot Systems are composed to provide the participants necessary knowledge for understanding the available theory and for realisation of real-world experiments with a fleet of autonomous micro aerial vehicles on the last day of the Summer School. This year the school will be focused on deployment of MRS in real-world conditions being motivated by cooperative inspection of a photovoltaic power station and DARPA SubT challenge <https://www.subtchallenge.com/>

The school is primarily considered for in person participation since a minimal amount of COVID cases and no travel restrictions were experienced in the Czech Republic in July in 2020 - 2022. Nevertheless, we will also allow virtual

participation for students from countries with travel restrictions or limitations.

The call for applications is now open: <http://mrs.felk.cvut.cz/summer-school-2023/apply.html>

2023 IEEE RAS Summer School on Multi-Robot Systems

WHERE: Prague, Czech Republic

WHEN: July 3-7, 2023

DEADLINE: March 7, 2023 (for early registration discount)

HOW TO APPLY: Submit CV, personal information, and a brief statement of interest through:

<https://forms.gle/19iZvpY2wXWc1VwH7>

Include title and abstract of your short talk if you are interested in providing a talk on your research (optional)

WHO SHOULD ATTEND: Graduate students (master or PhD) and students (Bc.) at an advanced stage of their university courses. R&D professionals.

FEE:

REGISTRATION TILL MARCH 7, 2023, AND PAYMENT BEFORE MARCH 22, 2023:

Students: € 532,40 (€ 440 excl. VAT)

Academic participants: € 617,10 (€ 510 excl. VAT)

Industry participants: € 713,90 (€ 590 excl. VAT)

Registration after March 7, 2023:

Students: € 665,50 (€ 550 excl. VAT)

Academic participants: € 762,30 (€ 630 excl. VAT)

Industry participants: € 883,30 (€ 730 excl. VAT)

* The fee includes all lectures, practicals with real robots, lunches, refreshments, welcome drinks, banquet, farewell drinks, and social programs - guided tour in Prague's Old Town

ORGANIZERS:

Martin Saska, Czech Technical University, Summer School Chair

Jen Jen Chung, ETH Zürich, Technical Committee and Advisory Board (RAS TC co-chair)

Changjoo Nam, Inha University, Technical Committee and Advisory Board (RAS TC co-chair)

Javier Alonso-Mora, Delft University of Technology, Technical Committee and Advisory Board (RAS TC co-chair)

Alyssa Pierson, Boston University, Technical Committee and Advisory Board (RAS TC co-chair)

Robert Fitch, The University of Sydney, Technical Committee and Advisory Board (RAS TC emeritus chair)

Nora Ayanian, University of Southern California, Technical Committee and Advisory Board (RAS TC emeritus chair)

Antonio Franchi, University of Twente, Technical Committee and Advisory Board (RAS TC emeritus chair)

Lorenzo Sabatini, University of Modena, Technical Committee and Advisory Board (RAS TC emeritus chair)

WEB PAGE: <http://mrs.felk.cvut.cz/summer-school-2023/>

CONTACT: mrs@fel.cvut.cz

This email was sent to jayen.modi@fragnel.edu.in
[why did I get this?](#) [unsubscribe from this list](#) [update subscription preferences](#)
[CTU](#) · [Karlovo namesti 13](#) · [Prague 12135](#) · [Czech Republic](#)



Jayen Modi Fr. CRCE <jayen.modi@fragnel.edu.in>
To: **Martin Saska** <martin.saska@fel.cvut.cz>

13 February 2023 at 19:47

Ref: Our Interaction at National University of Singapore (NUS) in 2016

Dear Dr. Martin Saska

I recall our whole-hearted interaction during the IEEE MRSS Summer School hosted by NUS, Singapore in June 2016. I hope you & your family are doing fine in the aftermath of the Covid-19 pandemic; things are returning back to normal.

It is my pleasure & privilege to invite you on behalf of the Department of Electronics & Computer Science at Fr. Conceicao Rodrigues College of Engineering affiliated to the University of Mumbai at Mumbai, India. I am taking a course in 'Robotics' for B.E. (ECS) - Semester VIII the syllabus of which is attached herewith. One of the major gaps identified in the syllabus is the absence of a module on 'Applications of Robotics' for which I invite you online on Google Meet as a resource person to share your words of wisdom with the students.

Your domain knowledge & subject expertise will certainly benefit our students & perhaps even motivate them to pursue a career in robotics for the near future. We would definitely like to have you address us virtually from the Czech Republic - probably the first week of March 2023.

Regards,

Jayen Modi
Assistant Professor & Co-ordinator - Training & Placements
Department of Electronics & Computer Science (ECS)
In-charge of Public Relations & Outreach
Fr. Conceicao Rodrigues College of Engineering, Bandra (Mumbai), INDIA

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 **ECC 801.pdf**
191K

Saska, Martin <Martin.Saska@cvut.cz>
To: "Jayen Modi Fr. CRCE" <jayen.modi@fragnel.edu.in>

14 February 2023 at 18:56

Hi Jayen,

I am bit confused now :-) The request for PhD position is for yourself or your students? Anyway, I will send you the call in a separate email.

Regarding the presentation to your student, I would be happy to do it? What is the expected duration of your talk? How many students do you expect to attend it? Can you invite also other scholars/professors from your uni? I would present some robotic applications we are working on that could be within their interest regarding a possible cooperation.

Best

Martin


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[Quoted text hidden]

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 Image removed by sender.

Jayen Modi Fr. CRCE <jayen.modi@fragnel.edu.in>
To: "Saska, Martin" <Martin.Saska@cvut.cz>

14 February 2023 at 19:09

Dear Dr. Martin Saska

Thank you very much for your reply. Since I am teaching a course on Robotics for undergraduate students of Bachelor of Engineering (B.E.) in Electronics & Computer Science - Semester VIII, you can expect around 70 students.

The talk can be between 1 hour to 2 hours online using the Google Meet platform. You can suggest a suitable title for your talk so we can publicize it here in the department & our institute. Please let me know your day & date. India is 5 hr 30 min ahead of GMT so we can schedule it in the evening say around 7 pm IST. I will also try to involve students from 2nd & 3rd year engineering to motivate them further.

Kindly suggest a suitable date so I can make the arrangements from my side.

Thanking you,

Jayen Modi

[Quoted text hidden]





Saska, Martin <Martin.Saska@cvut.cz>
To: "Jayen Modi Fr. CRCE" <jayen.modi@fragnel.edu.in>

14 February 2023 at 20:06

Jayen,

thanks for clarification.

The week 6.-10. of March, I am available anytime 9am-1pm CET. Later in the afternoon, I am available only on Wednesday (any time).

Let me know what your preference is.

[Quoted text hidden]

Jayen Modi Fr. CRCE <jayen.modi@fragnel.edu.in>
To: "Saska, Martin" <Martin.Saska@cvut.cz>

14 February 2023 at 23:19

Dear Dr. Martin Saska

We can confirm Thursday 9th March 2023 at 10:00 am CET (which is roughly 2:30 pm IST) if it is fine with you. This online interaction live from Prague, Czech Republic will certainly open up a new world for our staff & students. Kindly suggest/recommend a topic of your guest lecture talk so we can have it on record here.

Once again, thank you very much for this initiative. Your online presence will certainly motivate, benefit & enlighten our students about the interdisciplinary domain of robotics. Awaiting your confirmation.

[Quoted text hidden]

Saska, Martin <Martin.Saska@cvut.cz>
To: "Jayen Modi Fr. CRCE" <jayen.modi@fragnel.edu.in>

16 February 2023 at 19:35

Jayen,

perfect. I have it in my calendar.

Title: Deployment of teams of cooperating aerial vehicles in real-world environment.

Abstract: Using large teams of Micro Aerial Vehicles (MAVs) in real-world (outdoor and indoor) environments without precise external localisation or motion capture systems is a challenging task. In this talk, I will present the latest results of our endeavor towards fully autonomous compact flocks of MAVs with onboard artificial intelligence, which was achieved by the Multi-robot Systems group at the Czech Technical University in Prague. Stabilization, control, and motion planning techniques for steering swarms and formations of unmanned MAVs will be discussed. I will be talking about using MAVs for indoor documentation of large historical objects (cathedrals) by formations of cooperating MAVs, where one MAV carries a camera and its neighbors carry light sources with the possibility to set a relative angle between the camera axis and the lights as required. A cooperative manipulation of large objects by a pair of MAVs developed for the international MBZIRC competition and inspection of underground mines for DARPA competition will be presented. And finally, a fully autonomous flying robot, Eagle.one hunting for unauthorized drones will be shown.

Bio: Martin Saska received his MSc. degree at Czech Technical University in Prague, 2005, and his Ph.D. degree at University of Wuerzburg, Germany, within the PhD program of Elite Network of Bavaria, 2009. Since 2009, he is a research fellow at Czech Technical University in Prague, where he founded and heads the Multi-robot Systems lab (<http://mrs.felk.cvut.cz/>) and co-founded Center for Robotics and Autonomous Systems with more than 70 researchers cooperating in robotics (<https://robotics.fel.cvut.cz/cras/>). He was a visiting scholar at University of Illinois at Urbana-Champaign, USA in 2008, and at University of Pennsylvania, USA in 2012, 2014 and 2016, where he worked with Vijay Kumar's group within GRASP lab. He is an author or co-author of >150 publications in peer-reviewed conferences with multiple best paper awards and more >50 publications in impacted journals, including IJRR, AURO, JFR, ASC, EJC, with >5200 citations indexed by Scholar and H-index 41. His team won multiple robotic challenges in MBZIRC 2017, MBZIRC 2020 and DARPA SubT competitions (<http://mrs.felk.cvut.cz/projects/mbzirc>, <http://mrs.felk.cvut.cz/mbzirc2020>, <http://mrs.felk.cvut.cz/projects/darpa>).

[Quoted text hidden]

Jayen Modi Fr. CRCE <jayen.modi@fragnel.edu.in>
To: "Saska, Martin" <Martin.Saska@cvut.cz>

18 February 2023 at 11:06

Dear Prof. Martin Saska

Thank you for the confirmation. We cordially welcome you online on behalf of our department & institute.

We plan to issue certificates of participation to all students. If it is appropriate with you then a joint certificate can be issued with logos of our institute & Czech Technical University side-by-side (provided this does not violate any norms). Objective is to create awareness about your beautiful country - Czech Republic (in India we know that Prague is one of the most beautiful cities in Europe) & its institutions in our part of the world.

Looking forward to meeting you online on 9th March 2023 @10 am CET (2 pm IST) !

[Quoted text hidden]



Martin Saska.png
776K

Saska, Martin <Martin.Saska@cvut.cz>
To: "Jayen Modi Fr. CRCE" <jayen.modi@fragnel.edu.in>

19 February 2023 at 23:18

Yes, sure. Feel free to use all you find.

[Quoted text hidden]

Jayen Modi Fr. CRCE <jayen.modi@fragnel.edu.in>
To: "Saska, Martin" <Martin.Saska@cvut.cz>

20 February 2023 at 08:54

Thanks a lot. Please forward your digital signature / initials with this email as jpeg/png image which can be put on the certificate.

Will forward you sample design just for reference.

[Quoted text hidden]