

EIT Manufacturing Doctoral School

Gil Gonçalves

eitmanufacturing.eu









EIT Manufacturing

What is EITM?









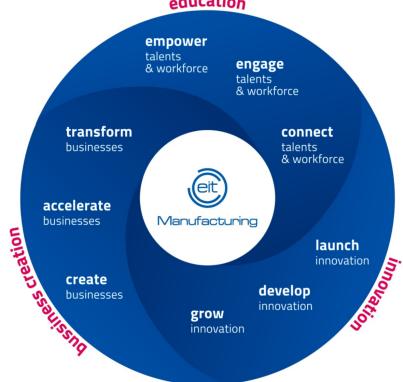
In practice: Putting the wheels in motion

Approach

education

Strategic objectives

- Competitive manufacturing skills and social sustainability
- Powerful manufacturing innovation ecosystems
- Globally competitive and resilient manufacturing
- Environmentally sustainable manufacturing
- Manufacturing fit for the digital age







Locations: Linking key manufacturing hubs

Legal Entity France

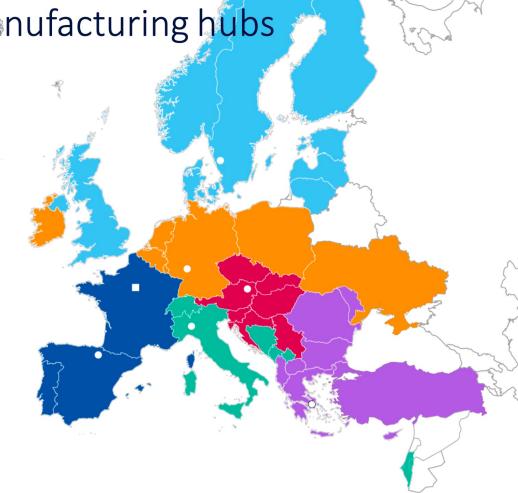
Headquarters Paris

6 Co-location Centers (CLCs)

- West San Sebastian, Spain
- North Gothenburg, Sweden
- Central Darmstadt, Germany
- South Milan, Italy
- East Vienna, Austria
- South-East Athens, Greece







Powerful partnership: 80+ partners from 20+ countries

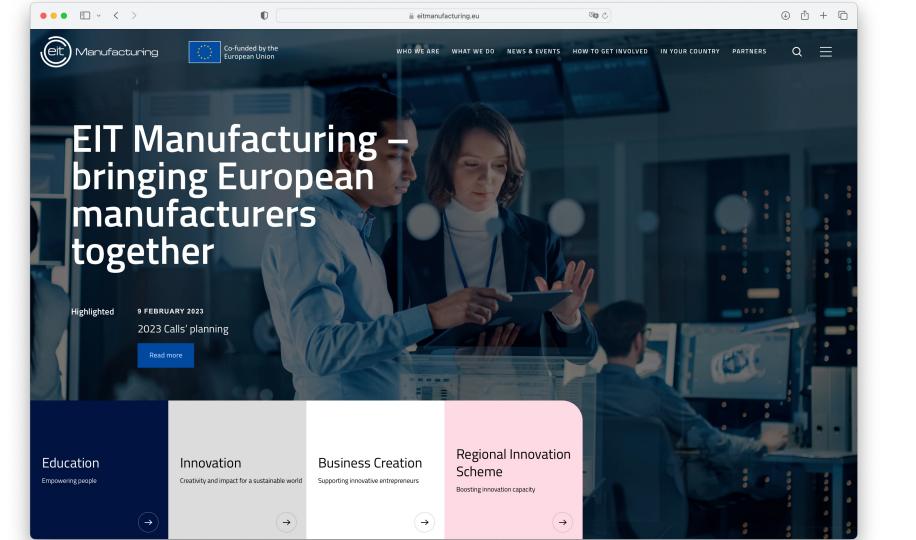
















EIT Manufacturing Doctoral School

What is the EITM Doctoral School?







What we do Our Activities Strategic external projects Success Stories + Calls and opportunities +

Co-funded by the

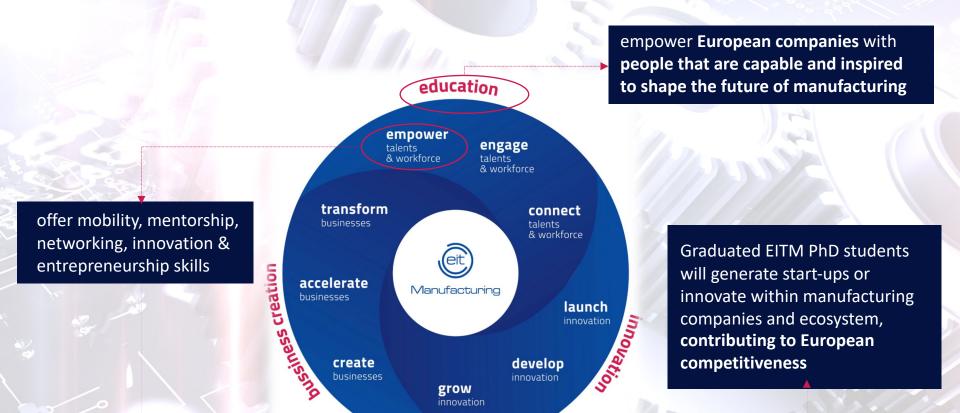
European Union

Manufacturing

The Doctoral School: Turn your thesis into a startup

The <u>EIT Manufacturing Doctoral School</u> supports PhD students in transforming their research results or patents into marketable solutions.

The programme involves PhD students from selected universities and may include collaboration with <u>industry partners</u> from the EIT Manufacturing community which help create an industrial doctorate position. These partners come from a variety of sectors such as automotive, aerospace, process industry, machinery and equipment, electronics, Information and Communication Technologies or medical technologies.



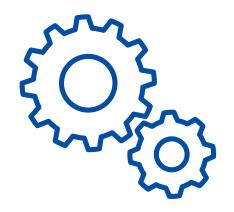






Vision: a Doctoral Programme for the Industry by the industry









Industrial impact with an integrated view on science & technology, business & society









For current or prospective PhD. students working on manufacturing related problems

who are looking for a challenging and supporting environment to enhance their research skills with innovation and business capabilities, with an **European dimension**

the EITM Doctoral School **is a** doctoral school

that provides **direct links to excellence science, industrial and societal new challenge**s, along with programmes to develop solid innovation, business and entrepreneurial competences, soft skills and a change-maker mind-set

EITM Doctoral School offers the right settings and support to develop PhD. Research project with relevant industrial impact with an integrated view on science & technology, business and society







The partners























Involvement of non-academic partners

Contribution from non-academic partners is fundamental to the training provided in the EITM Doctoral School.

Close integration with RTOs and industrial partners provides students with excellent trans-sectoral training, where they can develop the skills required to succeed in the industrial sector.

Non-academic partners provide industrial PhD. positions, internships or employment positions. Industrial PhD. position is dependent on a sponsor that provides funding for a scholarship, use cases, testbed and eventually a job at the end.

RTOs and industrial partners provide students the right context to develop their innovation activities might offer the right context for spinning-of these results into the market.











EIT Manufacturing Doctoral School

The Programme





The programme



The EITM Doctoral School Programme offers a wide range of activities, such as summer and winter schools, seminars, Teaching & Learning factories, hackathons, and other innovative pedagogical approaches.

Company visits, professional networking opportunities, International academic and industrial exchanges complete the Programme.

The EITM Doctoral School Programme consists of 60 ECTS to be completed along student PhD studies in 2 years minimum time. To complete the programme students must collect:

- 30 ECTS of student mobility
- 30 ECTS of Innovation & Entrepreneurship (I&E) training in Manufacturing







The mobility



Student mobility allows PhD students to experience new academic, international and industrial environments, to gain new knowledge and intercultural skills, and to grow their research and professional network

IMPORTANT: Student mobility must be always 30 ECTS, this means:

- Students, who undergo international mobility in a NON-Academic organization, must complete an additional 15 ECTS of Cross-Organizational mobility, either at the same organization or in a different organization, eventually in the same country of their home university. The two mobility periods can be consecutive or done in two different timeframes, during the two years of the programme.
- Students, who undergo Cross-Organizational mobility in a foreign country of their home university, must complete an additional 15 ECTS of International mobility, either at the same NON-Academic organization or in a different NON-Academic organization, or in an Academic environment in a different country of their home university. The two mobility periods can be consecutive or done in two different timeframes, during the two years of the programme.







Student mobility





DIGI2 - Digital and Intelligent Industry Lab

261 followers

EIT Manufacturing doctoral training programme offers a wide range of opportunities such as mobility, mentorship, networking, innovation and entrepreneurship, and business modules to PhD students.

Maria Victoria Hernández Marquina enrolled in this programme, being hosted by DIGI2 - Digital and Intelligent Industry Lab. A first-hand testimony is provided in this video https://lnkd.in/dJ96mhVS



Maria Victoria Hernández Marquina • 1st

PhD student on sustainable performance of supply chains in circular e...

In the last few months I had the opportunity to do an internship at the SONAE Group through the EIT Manufacturing Doctoral School. It was a very enriching experience in which I was able to see at first hand the challenges faced by industrial actors in the implementation of sustainable strategies, and at the same time the great work they are doing to overcome these challenges. This experience allowed me to apply knowledge acquired during my PhD and understand how I can help the industrial sector to be more sustainable and resilient. Yesterday was the closing of this beautiful experience, and I want to thank the SONAE team that accompanied me on this journey Ana Machado Silva Marlos Silva Rui Guilherme Gonçalves, the professor Gil Gonçalves from the DIGI2 - Digital and Intelligent Industry Lab, and the Doctoral School EIT Manufacturing team and Lucia Ramundo who allowed me to do this internship.



The Innovation & Entrepreneurship Programme

The Innovation and Entrepreneurship Programme at the EIT Manufacturing Doctoral School allows PhD students in the manufacturing field to gain and develop the skills and capabilities needed to valorize their expertise and research into the market, in order to become the change makers of the manufacturing sector.

Main characteristics:



Focused on manufacturing trends and societal challenges



Teachers and experts well experienced in their topic



Includes a structured entrepreneurship/intrapreneurship path



Mentors for students/group of students



Learning by doing approach



On-line and on site* activities (*welcome ceremony, summer school, winter school)







I&E Programme Structure



The I&E programme consists of 30 ECTS to be covered during two years and it is organized into two main tracks for two different PhD students profiles



Awareness and orientation track

PhD student profile:

PhD students who don't have the intention to start an entrepreneurial or intrapreneurial project in the short term, but want to learn what steps should be taken in order to be able to use that knowledge some time in the future.



Business creation track

PhD student profile.

PhD students who want to valorize knowledge, research findings, and related market insights, and are ready to become entrepreneurs or intrapreneurs by the end of the PhD studies.











Awareness and orientation track

The Innovation and Entrepreneurship Program at the EIT Manufacturing Doctoral School allows Manufacturing PhD students to gain and develop the skills and capabilities needed to valorize their expertise and research in the market. The "Awareness and orientation track" of the Innovation & Entrepreneurship Program is meant for PhD students who do not intend to start an entrepreneurial or intrapreneurial project in the short term but want to learn what steps should be taken, in order to be able to use that knowledge in the future. The track consists of two one-year programs: In year 1 the participant starts with learning "How to develop a business idea", and in year 2 the participant continues exploring "How to validate a business idea and how to prepare for a launch".









I&E Awareness & orientation track: how to create an idea



Participant Target: PhD student who may not have the ambition to develop an entrepreneurial or intrapreneurial project on an immediate basis.

Entry requirements: no previous entrepreneurship knowledge needed.

Learning Approach: Learning by doing

Duration: April - December **ECTS equivalence:** 15

What you will learn during this programme

The I&E "Awareness and Orientation Track - How to create an idea" is the first year of the two-year "Awareness and Orientation Track" for PhD students in the manufacturing field. During this first year programme, PhD students will deepen knowledge and skills on technologies and processes for innovation in the Manufacturing sector, and they will learn and practice how to define a problem and develop a business idea to solve it, with a sustainable and ethic approach. More information is available in the dedicated brochure.









Year 1 program: How to develop a business idea



During the first year, the PhD student will go through three different phases that will guide him/her in the development of a business idea.

Self-discovery (April-May)

Explore their own/team potential and define the ecosystem that would fit best when they are ready to start an entrepreneurial or intrapreneurial manufacturing project.

Market exploration (May-July)

Explore the market for societal, economic and environmental problems that can be solved by the manufacturing research.

Ideation (Sept-Dec)

Develop a solution that solves the problem(s) they have discovered, for the benefit of the sector and society.







April 2022 (1 ECTS)

Welcome ceremony

Seminar:

- self-discovery phase and team discovery
- leadership & team performance

Webinars:

Context Mapping

12-30 Sep 2022 (0.5 ECTS)

Webinars:

- Recap exploration
- Creativity and ideation skills

May 2022 (0.75 ECTS)

Webinars:

- Exploration mapping
- Manufacturing and industrial insights and tendencies
- Problem definition

Oct 2022 (0.75 ECTS)

Webinars:

- Ideating and designing with a sustainable, social and ethical mindset
- Technology as a driver for solution design
- Prototyping

June 2022 (0.5 ECTS)

Webinars:

- Design research
- Value proposition & design challenge

27th Summer School starts



Summer symposium

Nov 2022 (4 ECTS)

Webinars:

- User vs customer
- Business model design
- Differentiated value

21-30 Winter school



- Seminar: protecting your business through IPR
- Creativity & ideation bootcamp
- Seminars (optional): PSS for Green Manufacturing

1-13 July 2022 (5.5 ECTS)

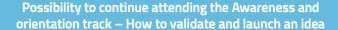


- Seminars about scientific cutting-edge research methods for Green Manufacturing
- Design research bootcamp
- Hackathon event: bridging exploration and ideation
- Networking event

1-15 Dec 2022 (2 ECTS)

- 1-2 Winter school (continuation)
- Workshop: Pitching
- Pitch event
- Networking events and company visit

15/12 Final video presentations





Possibility to switch to Business Creation Track – How to validate and launch an idea









EITM Doctoral School Innovation Online Short Course

Supply Chain in Manufacturing



21 & 22 lune



Online Short Course: Supply Chain in Manufacturing

The EITM Doctoral School Innovation Short Courses 2023 continue with the 2nd short course on "Supply Chain in Manufacturing", delivered by one of our partner universities, Grenoble INP on 21st & 22nd June (online),

Topic of discussion: Discrete-event simulation for decision aiding in manufacturing context

This short course will be delivered by Mr. Zakaria Yahouni, he is a researcher and lecturer of industrial engineering at Grenoble INP and G-SCOP Laboratory. He holds a PhD. in industrial engineering from the Ecole Centrale of Nantes. His research is focused on using machine learning and simulation for manufacturing and supply chain optimization.

Know more here

Last day to apply: 20 June 2023









I&E Awareness & orientation track: How to validate and launch an idea



Participant Target: PhD student who may not have the ambition to develop an entrepreneurial or intrapreneurial project on an immediate basis.

Entry requirements: having completed first year of the Awareness and Orientation Track or availability to work on a real business challenge with open innovation approach.

Learning Approach: Learning by doing

Duration: April - December **ECTS equivalence:** 15

What you will learn during this programme

The I&E "Awareness and Orientation Track - How to validate and launch an idea" is the second year of the two-year "Awareness and Orientation Track" for PhD students in the manufacturing field. During this second year programme, PhD students will deepening knowledge and skills on technologies and processes for innovation in the Manufacturing sector, and they will learn and practice how to validate and iterate on a business idea with an Open Innovation approach and to develop the first foundations for a successful startup launch. More information is available in the dedicated brochure.









Year 2 program: How to validate a business idea and prepare for a launch



In the second year, the PhD student will go through two different phases prepare for the launch of the business idea that has been developed in the first-year program.

Validation and iteration (April-July)

First, they will learn how to validate their value proposition, solution, and related business model in the market through the use of lean experimentation techniques.

Pre-launch strategy (Sept-Dec)

Then, they will build their plans and materials to prepare for the launch of their business project. Teams with a feasible project at the end of this phase can apply to the Business Creation Pillar of EIT Manufacturing to continue the incubation and realization of their entrepreneurial project.

Since PhD students in the Awareness and orientation track are not yet planning to start an entrepreneurial or intrapreneurial project, the validation, iteration, and pre- launch activities will be applied on an existing startup or corporate entrepreneurship project, creating an open innovation relationship with the manufacturing business.

April 2022 (2.5 ECTS)

Welcome ceremony

Seminar: Intro validation and iteration phase

Seminar: Business concept and blueprint

Meetings with startup to innovate with

12-30 Sep 2022 (0.75 ECTS)

Webinars:

- Building your product demo
- Product roadmap
- Designing a brand

Innovation mentorship

May 2022 (4 ECTS)

Start Open Innovation Programme

Webinars:

- pitching and storytelling
- validation and lean experimentation techniques

Prototyping Bootcamp

Sprint 1 lean experimentation

Innovation mentorship

Oct 2022 (1 ECTS)

Webinars:

- Sales plan
- Organization plan and project GANNT
- Legal framework
- Financial plan

Innovation mentorship

June 2022 (3 ECTS)

Webinars:

- Prototyping design constraints and industrial feasibility
- Green manufacturing

Sprint 2 & 3 validation

Pitch round

Innovation mentorship

Nov 2022 (0.5 ECTS)

Webinars:

- Investor deck
- Pitching and
- Storytelling

Innovation mentorship

1-13 July 2022 (2.25 ECTS)

Sprint 4 lean experimentation

Summer School



Hackathon event

Presentation of validation results

Pitch round

Networking events

1-15 Dec 2022 (1.25 ECTS)

1-2 Winter school



Opening Demo Day Innovation programme

Pitch event

- Networking events
- Closing ceremony



RAL







Winter School on Sustainable Manufacturing (DS-SustMan) 2022

21 November - 2 December 2022 Grenoble INP - UGA



ENTRY QUALIFICATION:

A Master of Science Degree is required or enrollment in PhD study (The entry qualification documents are accepted in English only)



LANGUAGE REQUIREMENTS:

English, you must be able to write, understanding and speak in English



OTHER REQUIREMENTS:

To apply to the DS-SustMan Winter School, you are required to upload the following documents:

- Academic qualification certificate (bachelor of science degree)
- Curriculum Vitae including details on your academic and professional career using preferably the Europass format (https://europa.eu/europass/en/create-europass-cv)
- PhD topic description
- A colour copy of your either National ID (only for EU/EFTA students) or passport
- A motivation letter describing your interest into the EITM Winter School topics and programme and your entrepreneurial project you are thinking or even working on.









Winter School Program Overview Week #1

Q Grenoble, France | 21 - 27 November 2022

Innovation Bootcamp

| Monday 21/11 | | Tuesday 22/11 | | Wednesday 23/11 | | Thursday 24/11 | |
|---------------|---------------------------------------|---|---------------------------------------|-----------------|---|----------------|--|
| 09:00 - 09:30 | Registration Welcome coffee | 08:00 - 12:00 | Creativity and Innovation Bootcamp | 08:00 - 12:00 | Creativity and Innovation Bootcamp | 08:00 - 12:00 | Creativity and Innovation Bootcamp |
| 09:30 - 12:30 | Opening Session | 12:00 - 13:00 | Networking Lunch | 12:00 - 13:30 | Entrepreneur's talk & Networking Lunch | 12:00 - 13:30 | Entrepreneur's talk & Networking Lunch |
| 12:30 - 13:30 | Lunch | 13:00 - 15:30 | IPR Training | 13:30 - 17:00 | Visit at CEA | 13:30 - 15:30 | Additive Manufacturing and Virtual Reality Centers |
| 14:00 - 17:30 | IPR Training | Operations Managements 15:30 - 17:00 and Automated Production | | | | 13.30 - 13.30 | Visit S. Mart |
| 18:00 - 20:00 | Welcome cocktail | 15.30 - 17.00 | Centers Visit S. Mart | | | 15:30 - 18:00 | Grenoble Visit |
| Friday 25/11 | | Saturday 26/11 | | Sunday 27/11 | | | |
| 08:00 - 12:00 | Creativity and Innovation Bootcamp | | | | | | |
| 12:00 - 13:00 | Networking Lunch | | | | | | |
| 13:00 - 17:00 | Creativity and | | | | | | |







Business Creation Track

The Innovation and Entrepreneurship Program at the EIT Manufacturing Doctoral School allows Manufacturing PhD students to gain and develop the skills and capabilities needed to valorize their expertise and research in the market. The version of the I&E Program that is called "Business Creation track" is meant for those PhD students who want to valorize knowledge, research findings, and related market insights, and are ready to become an entrepreneur or intrapreneur. The track consists of two one-year programs: In year 1 the participant starts with learning "How to develop a business idea", and in year 2 the participant continues exploring "How to validate a business idea and how to prepare for a launch".









I&E Business Creation track: How to create an idea



Participant Target: PhD students who want to valorize knowledge, research findings, and related market insights, and are ready to become entrepreneurs or intrapreneurs by the end of their PhD studies.

Entry requirements: no previous entrepreneurship knowledge nedeed.

Learning Approach: Learning by doing

Duration: April - December

ECTS equivalence: 15

What you will learn during this programme

The I&E "Business Creation Track - How to create an idea" is the first year of the two-year "Business Creation Track" for PhD students in the manufacturing field. During this first year programme, PhD students will deepen knowledge and skills on technologies and processes for innovation in the Manufacturing sector, and they will learn and practice how to define a problem to develop a business idea that will encompass the proper solution for the problem.

More information is available in the dedicated brochure.









Year 1 program: How to develop a business idea



During the first year, the PhD student will go through three different phases that will guide him/her in the development of a business idea.

Self-discovery (April-May)

Explore their own/team potential and definethe ecosystem that would best suit them to start an entrepreneurial or intrapreneurial manufacturing project.

Market exploration (May-July)

Explore the market for societal, economic and environmental problems that can be solved by manufacturing research.

Ideation (Sept-Dec)

Develop a solution that solves the problem(s) students discovered, for the benefit of the sector and society.









I&E Business Creation track: How to validate and launch an idea



Participant Target: PhD students who have a concrete idea to be validated and launched into the market.

Entry requirements: having completed first year of the Business Creation Track or the full programme and having a concrete business idea.

Learning Approach: Learning by doing

Duration: April - December **ECTS equivalence:** 15

What you will learn during this programme

The I&E "Business Creation Track - How to validate and launch an idea" is the second year of the two-year "Business Creation Track" for PhD students in the manufacturing field. During this second year programme, PhD students will deepening knowledge and skills on technologies and processes for innovation in the Manufacturing sector, and they will learn and practice how to validate and iterate on their own business idea and to develop the first foundations for a successful startup launch. More information is available in the dedicated brochure.









Year 2 program: How to validate a business idea and prepare for a launch



In the second year, the PhD student will go through two different phases that will ultimately prepare them to launch the business idea that has been developed in the first-year program.

Validation and iteration (April-July)

First, they will learn how to validate their value proposition, solution, and related business model in the market through the use of lean experimentation techniques.

Pre-launch strategy (Sept-Dec)

Then, they will build their plans and materials to prepare for the launch of their business project. Teams with a feasible project at the end of this phase can apply to the Business Creation Pillar of EIT Manufacturing to continue the incubation and realization of their entrepreneurial project.

The PhD student will be offered a toolbox and methodology to be applied directly on a real business project that has been developed or is going to be developed during the Venture Building Program. This part of the I&E Program prepares the researcher to become an entrepreneur or intrapreneur, and to be ready to launch their business idea.

Admission



Who can apply to the Doctoral School?

Students who are enrolled in a PhD course in a manufacturing related topics at one of the partner universities and still have a minimum 2 years to complete their PhD studies.

The specific admission requirements are:

- English proficiency
- PhD supervisor approval to attend the full Doctoral School programme

When to apply to the Doctoral School?

Applications are open all year round, but selections are done twice a year, first quarter and third quarter of each year. Please check the Doctoral school web pages for specific dates.







Finance and Scholarships



Free of charge for selected candidates.

Students will be requested to pay for non-mandatory activities at a special rate, which will be communicated at the time of the activity application opening.

Scholarships

Scholarships* include:

- mobility grant
- subsistence costs support during mobility (no double EU funding is allowed, not allowed for fully funded industrial doctorate positions)
- possible fee waivers for mandatory activities
- * Scholarships are subjected to EIT grant



Students don't need to present any specific request for scholarship eligibility.











Summer School





EIT Manufacturing

Admission to EIT Manufacturing #DoctoralSummerSchool on "Smart Systems for Resilient Manufacturing (SSRM) and Market Exploration" is now #open!

This short course will be an opportunity for self-driven, ambitious #PhDcandidates 7 #researchers, and professionals to broaden their network with potential European partners and to boost their abilities and competencies in advanced tools for the design, implementation, organisation, quality assessment, and improvement of #intelligentmanufacturing systems.

Summer Programme:

#Online : 04 July 2023

Slovenská technická univerzita v Bratislave: 10 to 14 July 2023

Czech Technical University in Prague: 17 to 21 July 2023

Deadline for applications: 15 June 2023

https://lnkd.in/e8K67x5h







EITM Doctoral Summer School on "Smart Systems for Resilient Manufacturing & Market Exploration"

APPLY NOW

WHO CAN APPLY?

- You should be a Master of Science graduate (Mandatory)
- PhD students, Researchers
- Professionals in manufacturing

SCHEDULE

- 04 July 2023 | Online @
- 10 to 14 July 2023 | Bratislava
 - 17 to 21 July 2023 | Prague •





More information



https://www.eitmanufacturing.eu/what-we-do/education/doctoral-school/







Thank you!



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eitmanufacturing.eu



