

### Main Areas of Research

The MIT Portugal is a research platform aimed to foster emerging concepts associated with the design, test and implementation of new products and systems for markets worldwide, as well as to train future leaders in cutting-edge areas of science and technology. The program has targeted Bioengineering Systems, Engineering Design and Advanced Manufacturing, Sustainable Energy Systems, and Transportation Systems as key areas for economic development and societal impact. Emphasis has been given to research in novel biomedical therapies and devices, sustainable energy and transportation systems and new-engineered products.

### Strategic Instruments

To achieve these goals MIT Portugal Program focuses on developing integrated research activities in joint university-industry partnerships intended to create value and contribute to sustainable economic growth through the development of new knowledge based products and services. The success of this strategy requires the promotion of a critical mass of highly educated young professionals and researchers, motivated to engage in entrepreneurship and capable of bringing together university and industry research and needs, at the national and international level, through:

- An innovative academic pathway, established 7 graduate education programs (3 Masters, 4 PhD Programs) in Bioengineering, Engineering Design and Advanced Manufacturing, Sustainable Energy Systems, and Transportation Systems. Every year 40 fully-funded scholarships are awarded to candidates through the FCT PD-F programs (10 per year per each area).
- Promotion intra- and entrepreneurship trough the Building Global Innovators global accelerator program and Venture formation of Students and Faculty through visiting scholars at MIT promoting a tight integration into MIT labs, setting up of collaborative research projects, and broad immersion in the MIT environment with ample opportunities to adopt MIT classes and participate in ecosystems activities.
- Foster university – Industry integrated research at a national and international level through joint research large-scale test-bed projects with the objective to develop innovative products and services with high export potential as a way to demonstrate internationally Portugal's competitiveness and innovative capacity, and ultimately contribute to the growth of the Portuguese economy.

### MIT PORTUGAL PROGRAM

The MIT Portugal Program is an international partnership involving MIT, universities and industry in Portugal, funded by FCT. The MIT Portugal Program aims to demonstrate that an investment in science, technology and higher education can have a positive, lasting impact on the economy by addressing key societal issues through quality education and research in the emerging field of engineering systems.

The Doctoral Programs were selected under the Call from Fundação para a Ciência e a Tecnologia, IP (FCT,IP), through which 10 scholarships per year per program are attributed to selected candidates. Students will have the opportunity to carry out part of their research at MIT. Please consult the announcement of the PhD call at our website for further details.

The funds used for this call may be national funds and EU structural funds in agreement with the respective regulations.



## DEADLINES

PhD Programs - April 13<sup>th</sup>, 2016

Advanced courses (Executive Masters and Diploma of Advanced Education) - June 13<sup>th</sup>, 2016



**APPLICATIONS ONLINE AT**  
[WWW.MITPORTUGAL.ORG](http://WWW.MITPORTUGAL.ORG)

# MIT Portugal

Excellence in engineering for innovation in global markets



## GRADUATE PROGRAMS

- Doctoral Programs (PD-F)  
40 Fully Funded PhD Scholarships
- Advanced courses (Executive Masters and Diploma of Advanced Education)

**APPLICATIONS ONLINE AT [WWW.MITPORTUGAL.ORG](http://WWW.MITPORTUGAL.ORG)**

The **MIT Portugal Program** (MPP) is a strategic international partnership between Portuguese Universities and Research Centers, the Massachusetts Institute of Technology (MIT), and multiple partners from industry and the public sector, funded by the Fundação para a Ciência e Tecnologia (FCT). Our goal is to strengthen the country's knowledge base and international competitiveness through a strategic investment in people, knowledge and ideas in innovative technology sectors.

**Education**

**I+E**

**Research & Network**

- 3110** Applications
- 50,9%** International Applications
- 958 PhD & MSc students** enrolled at PT Universities
- 171 PhD & 214 MSc Graduates**
- 270 PT & 70 MIT Faculty** members involved
- 184 PhD candidates & 45 Scholars** visited and Trained at MIT

- 79** Active Startups (BGI + Faculty & Students)
- 7** MIT centers involved in MPP I+E
- 5 Ed. BGI** 515 Applications 33 countries + 300 jobs
- 28** Higher Education institutions involved in R&D
- 59** Industrial Affiliates
- 20 projects + 2 test-bed** funded through competitive calls

## BIOENGINEERING SYSTEMS

- PhD PROGRAM
- EXECUTIVE MASTERS

**CANDIDATE'S PROFILE**  
 Academic background in biological and biochemical engineering, molecular and cellular biology, biochemistry, biotechnology, pharmaceutical sciences or other areas related with bioengineering.  
 We will value candidates with an interest in technological innovation and entrepreneurship in the bioengineering field, as well as teamwork ability and a strong motivation to work in R&D projects.

- MAIN RESEARCH TOPICS**
- Biomedical Devices & Technologies
  - Biomolecular, Bioprocess & Biosystems Engineering
  - Biosystems Innovation, Management & Policy
  - Cells and Bio-inspired Materials in Regenerative Medicine
  - Engineering Processes for Health Care Practice
- PARTICIPATING INSTITUTIONS**
- FCTUNL
  - UM
  - IST-UL
  - MIT

## ENGINEERING DESIGN AND ADVANCED MANUFACTURING

- PhD PROGRAM
- LEADERS FOR TECHNICAL INDUSTRIES
- EXECUTIVE MASTERS
- TECHNOLOGY MANAGEMENT ENTERPRISE

**CANDIDATE'S PROFILE**  
 Academic background in mechanical, electronic, industrial, chemistry or materials/polymer engineering. Other technical education background may be considered (e.g.:mathematics, physics or industrial design).  
 We are looking for candidates with a strong motivation in developing a career in product development, technical or production management, preferably with previous professional experience in an industrial environment.

- MAIN RESEARCH TOPICS**
- Design, Advanced Manufacturing & Product Development process in the industrial sectors:
- Aerospace
  - Automotive
  - Medical Devices
  - Railway
- PARTICIPATING INSTITUTIONS**
- FEUP
  - IST-UL
  - MIT
  - UM

## SUSTAINABLE ENERGY SYSTEMS

- PHD PROGRAM
- DIPLOMA OF ADVANCED EDUCATION (University of Porto)
- EXECUTIVE MASTERS (University of Lisbon)

**CANDIDATE'S PROFILE**  
 Academic background in engineering, computer science, physics, architecture, economics or management. Other technical education background may be considered.  
 We are looking for candidates with a strong interest in research and innovation, good communication, entrepreneurial and leadership skills.

- MAIN RESEARCH TOPICS**
- Energy Planning including Economics
  - Smart Energy Networks
  - Sustainable Built Environment
- PARTICIPATING INSTITUTIONS**
- FEUC
  - FEUP
  - FCTUC
  - FCUL
  - IST-UL
  - MIT
  - ISEG-UL

## TRANSPORTATION SYSTEMS

- PhD PROGRAM

**CANDIDATE'S PROFILE**  
 Candidates will come from a range of disciplines, including civil engineering, urban planning, computer science, economics or other social and engineering sciences. Successful candidates will couple strong analytic and writing skills with the capacity to collaborate in high-level research teams. We will value candidates with professional experience in related areas for the program.

- MAIN RESEARCH TOPICS**
- Air transport systems
  - Innovative urban transport modes/services
  - Intelligent transport systems
  - Land-use/transport systems
  - Railway infrastructure and operation systems
  - Road infrastructure and operation systems
  - Transport safety systems
  - Traveler information systems
  - Urban mobility and accessibility
- PARTICIPATING INSTITUTIONS**
- FEUP
  - FCTUC
  - IST-UL
  - MIT