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**Memorandum of Understanding**

**Between**

**The Portuguese Foundation for Science and Technology**

**And**

**The Indian Institute of Technology Gandhinagar, the Indian Institute of Technology  
Madras, the Indian Institute of Technology Roorkee**

**on**

**Cooperation in the fields of Higher Education and Scientific Research**

The Portuguese Foundation for Science and Technology and the Indian Institute of Technology Gandhinagar, the Indian Institute of Technology Madras, the Indian Institute of Technology Roorkee, hereinafter referred to as the “Parties”;

**CONSIDERING** the positive development of the relationship between India and Portugal, reinforced in January 2017 by the official visit of the Portuguese Prime Minister to India, accompanied by the Minister for Science, Tecnology and Higher Education;

**DESIRING** to develop and strengthen academic and scientific cooperation between India and Portugal;

**RECOGNISING** that India and Portugal are currently pursuing academic, research and technology activities in many scientific areas of common interest, and that further participation in each other’s research and development activities on the basis of equality and reciprocity will provide mutual benefits;

**INTENDING** to foster the development of an academic and scientific cooperation agenda between Portuguese Universities and Scientific Research Institutes and Indian Institutes of Technology;

**HAVE REACHED** the following understanding:

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## Article 1

### Objectives for Cooperation

The main objective of this Memorandum of Understanding (hereinafter referred to as "MoU") is to develop and implement a Joint Collaborative Program between the Portuguese Foundation for Science and Technology and the Indian Institute of Technology Gandhinagar, the Indian Institute of Technology Madras, the Indian Institute of Technology Roorkee, namely by:

- (a) Establishing inter-institutional cooperation and relations between the Parties, in order to pool their efforts, on the technical, financial and human resources with an intention to develop the higher education and scientific research cooperation;
- (b) Facilitating the identification of specific projects and collaborations between the Parties that could lead to research and innovation cooperation.

## Article 2

### Scope of the Joint Collaborative Program

Actions under this MoU will consider all areas of knowledge and it should be driven by ideas promoting new frontiers of science, technology and the arts, including emerging fields of engineering, exact sciences, life sciences and social sciences and the humanities

## Article 3

### Actions included in the Joint Collaborative Program

To develop the Joint Collaborative Program, the Parties will pursue, among others, the following actions:

- (a) Bilateral actions based on **Joint Doctoral training and research**, including joint guidance of doctoral students and exchange of research staff (including Faculty members and Postdoctoral Fellows), with students to be selected in Portuguese Universities and Scientific Research Institutes and at the IIT network under a competitive call for proposals to spend at least one semester to one year abroad;
- (b) **Joint action on Undergraduate engineering education**, towards "engineers with a future", including 6-8 weeks' internship and the exchange of small groups of undergraduate engineering students for one to two weeks and discuss issues of social responsibility, together with the development of workshops and project work in either IIT or in Portuguese Universities;
- (c) **Collaborative Interdisciplinary Research Projects** jointly funded by respective Portuguese and Indian Funding Agencies in areas of common interest and also of Global Importance, for example, including (but not limited to) Energy, Environment, Infrastructure Sustainability, Climate Change and Risk Governance related issues.
- (d) **Joint research on "India-Portugal Contemporary Issues of Technical Change"**, to foster deep research understanding on emerging themes associated with India-Portugal mutual influences in association with technical, economic and cultural relations, such as:



- (Handwritten signatures and initials: "R", "An", "Suresh", "A", and "m")
- i) History, heritage and culture: This domain will focus on the heritage formed during the long contact between Portugal and India, in order to boost collaborative research on how the past and the long cultural and knowledge connections between the two countries have shaped contemporary contexts. The preservation and restoration of heritage and new economic opportunities for historical centers should be taken into consideration.
  - ii) Technology and societal challenges: This domain will focus on the contemporary relations between both countries and explore the possibilities to foster new social and economic connections. One of the main objectives is to pursue collaboration on social development: connecting expertise on both countries in order to find solutions for wide societal challenges: poverty, environment, economy and education;
  - (e) Joint development of interdisciplinary master programs as well as specialized master programs (for example, on Computer Science and Machine Learning related fields, Infrastructure Systems and Space related domains), and promotion of new research projects on emerging frontiers of knowledge of computer and data science, both actions intended to strengthen digital skills;
  - (f) The Joint organization of technical workshops, seminars, study tours and training sessions;
  - (g) Other actions mutually agreed.

#### **Article 4**

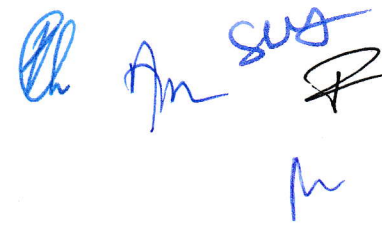
##### **Funding and Resources**

1. The activities referred to under this MoU will be financed with funds allocated under the budgets of the Parties made available by appropriate agreement between Portuguese and Indian Funding Agencies, and subject to the conditions under that agreement as enumerated in Terms of Reference (ToR) for this MoU between the Department of Science and Technology (DST) of the Ministry of Science and Technology of the Government of India and the Portuguese Foundation for Science and Technology (FCT);
2. The funds for these activities are subject to the laws governing the organization and structure of the Parties as well as to their internal law;

#### **Article 5**

##### **Working Group**

1. The MoU will be implemented through a Joint Working Group composed of one representative of each Party (FCT, Indian Institute of Technology Gandhinagar, Indian Institute of Technology Madras and Indian Institute of Technology Roorkee).
2. The Joint Working Group will have a Coordinator in Portugal and a Coordinator in India, to be agreed between the Parties.

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3. The structure of the Joint Working Group will be established at an appropriate date mutually agreed upon by the Parties before organizing the meeting of the Joint Working Group.
  4. For the Portuguese Party, the Foundation for Science and Technology will consult and coordinate with the Council of Rectors from Portuguese Universities and the Consortium of Engineering Science and Technology Schools from Portugal.
  5. The Joint Working Group will be responsible for defining methodologies, mechanisms and procedures for the development of the activities provided in the MoU, including the feasibility and the financial requirements.
  6. The Joint Working Group will make efforts to meet at least once a year alternately in India and in Portugal, as mutually agreed upon by the Parties.

#### **Article 6 Intellectual Property Rights**

Each Party will ensure appropriate protection of Intellectual Property Rights generated from co-operation pursuant to this MoU, consistent with their respective national laws, rules and regulations and international agreements to which both Parties are committed.

#### **Article 7 Interpretation**

Any question arising out of the interpretation and/or implementation of the MoU will be settled amicably through consultations and/or negotiations between the Parties.

#### **Article 8 Amendments**

The MoU may be amended at any time by mutual written consent of the Parties.

#### **Article 9 Effects**

1. The MoU will come into effect on the date of its signature and will remain in force for a period of five (5) years. Thereafter, it will be renewable for further periods by mutual written consent of the Parties.
2. Either Party may terminate the present MoU by giving a written notice of its intention to terminate it to the other Party at least six (6) months' in advance.

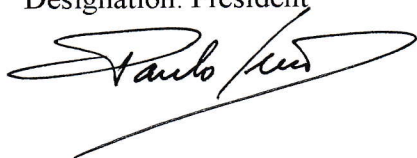
3. The early termination of this MoU will not affect cooperative activities under Article 2 of this MoU which are already in progress.

This MoU is celebrated in four original copies in the English language, each original copy being held by each one of the four signatory parties.

Signed at Lisbon on June 23<sup>rd</sup> 2017


For the Portuguese  
Foundation for Science and Technology

Name: Paulo Ferrão  
Designation: President



For the Indian Institute of Technology  
Gandhinagar

Name: Sudhir K. Jain  
Designation: Director



For the Indian Institute of Technology  
Madras

Name: Ashok K. Mishra  
Designation: Dean, Academic Research



For the Indian Institute of Technology  
Roorkee

Name: Ajit K. Chaturvedi  
Designation: Director

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This MoU has been made in the presence of:

Minister for Science, Technology and Higher  
Education of the Republic of Portugal

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Manuel Heitor