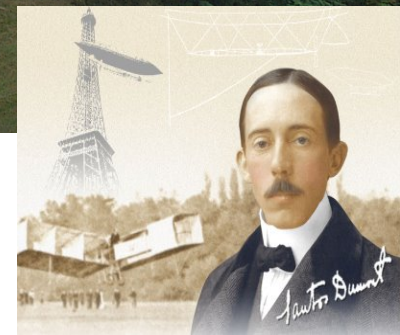


ITA

Pró-Rectorio of Graduate Studies

Prof. Roberto Gil Annes da Silva
Head of the Division of Postgraduate and Research



É tempo, talvez de se instalar uma escola de verdade em um campo adequado. Não é difícil encontrá-lo no Brasil. Nós possuímos, para isso, excelentes regiões planas e extensas, favorecidas de ótimas condições atmosféricas....



Graduate Studies at ITA

Prof. Pedro Teixeira Lacava

Pró-Rector of Graduate Studies

Prof. Roberto Gil Annes da Silva

Head of the Division of Posgraduate and Research

Prof. Jesuíno Takachi Tomita

Head of the Continuing Education Division

01/08/2017



Faculty

- Professors: ~137
- Researchers: ~23
- Military Instructors: ~9
- Total: ~**169**

ITA

- Adjunct Faculty from IAE, IEAv and INPE

- Postgraduate Professors ~ **179**

IP

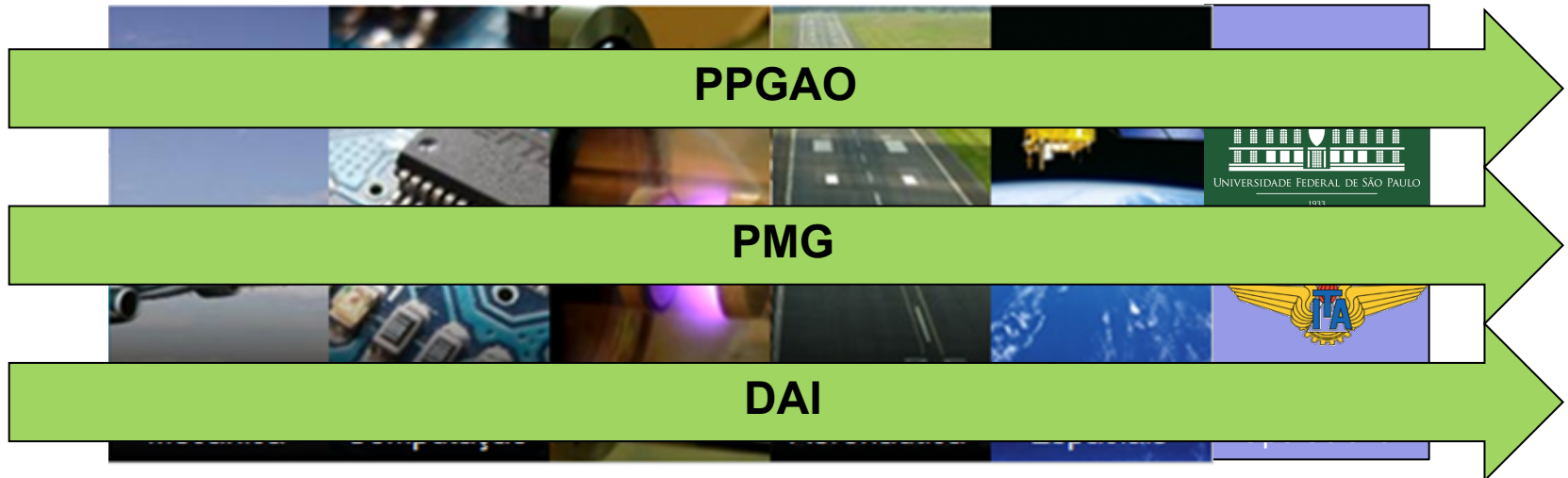


Students enrolled up to 1º/ 2018

- Doctorate: 267
- Master: 384
- Professional Master: 243
 - *Sub-total: 894*
- Admission Student: 352
- Specialization and Extension: 40
 - *Sub-total: 392*
 - **General Total : 1286 alunos**
- ***Undegraduate: 704***

Postgraduate Courses – Stricto Sensu

Horizontal Programs



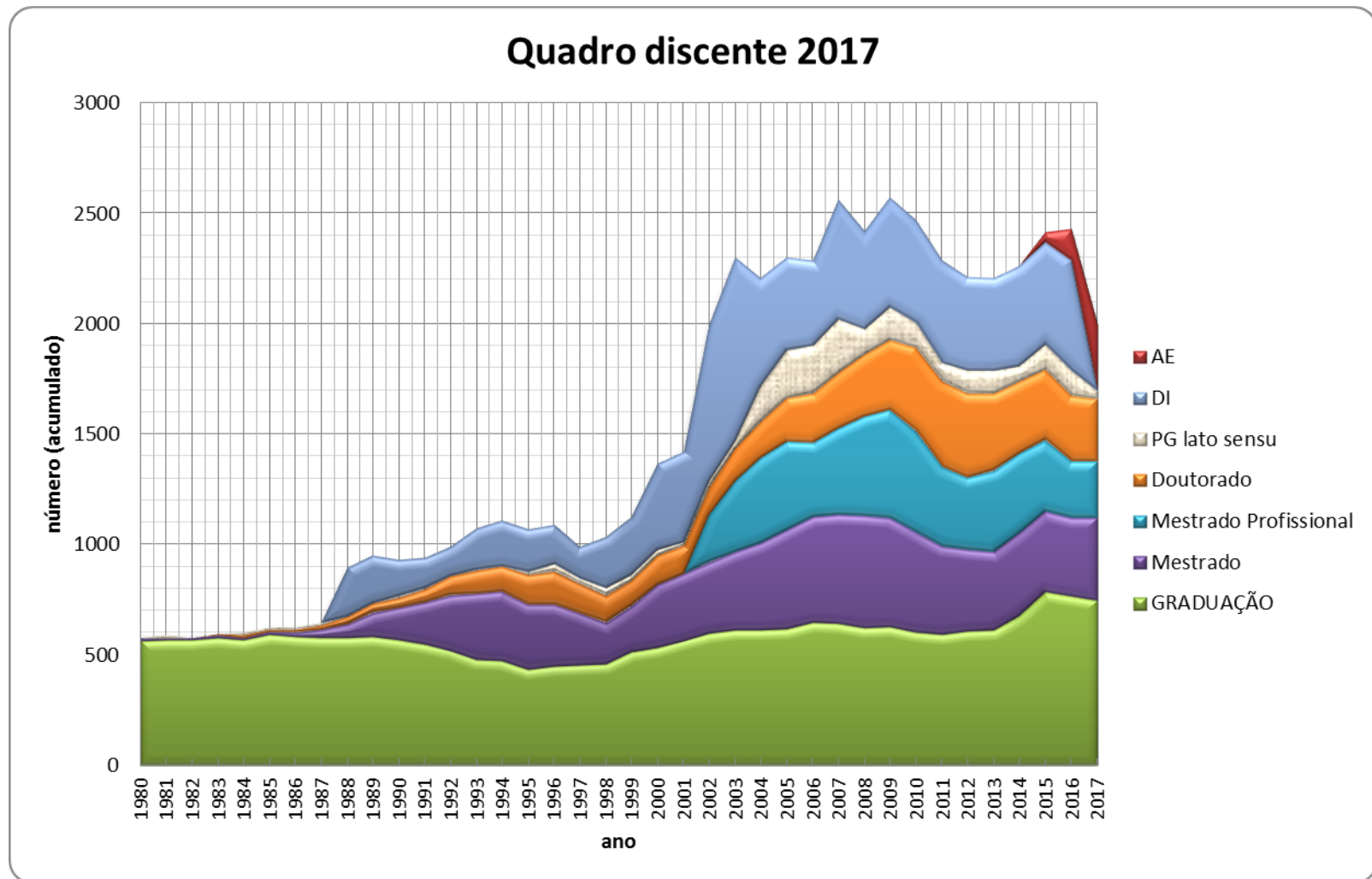
PPGAO – Operational Applications Postgraduate program

PMG – Undergraduate-Graduate integrated program

DAI – Industrial Doctorate Program



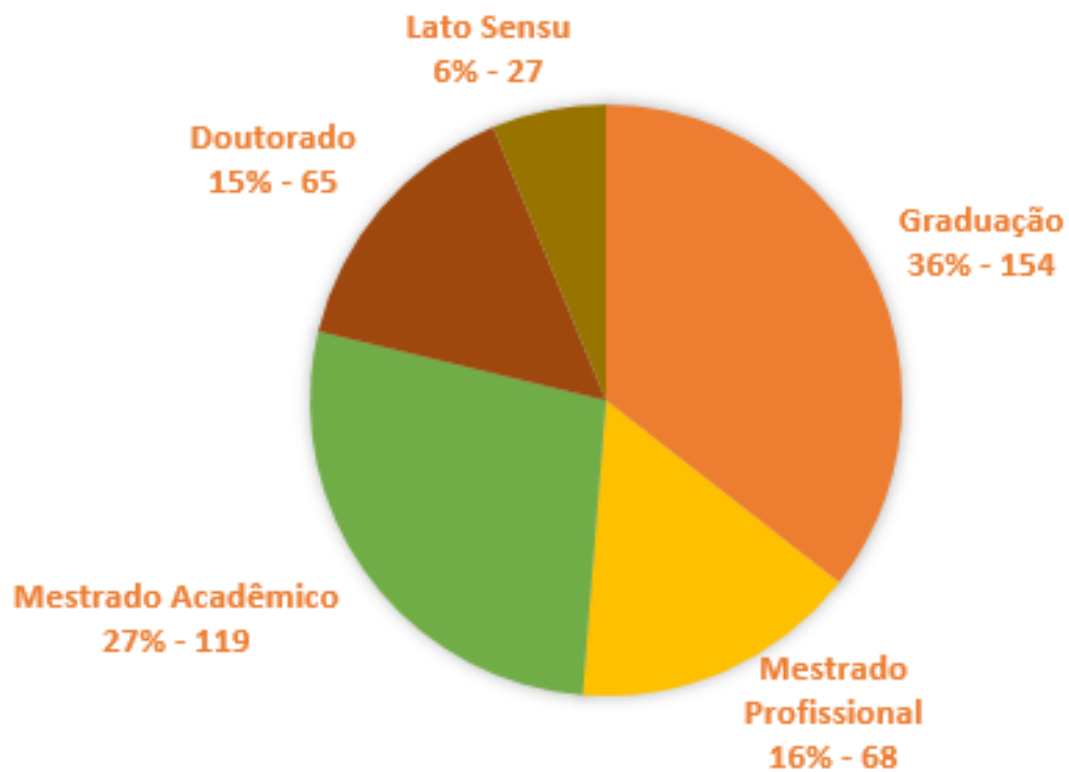
Evolution of ITA Postgraduation

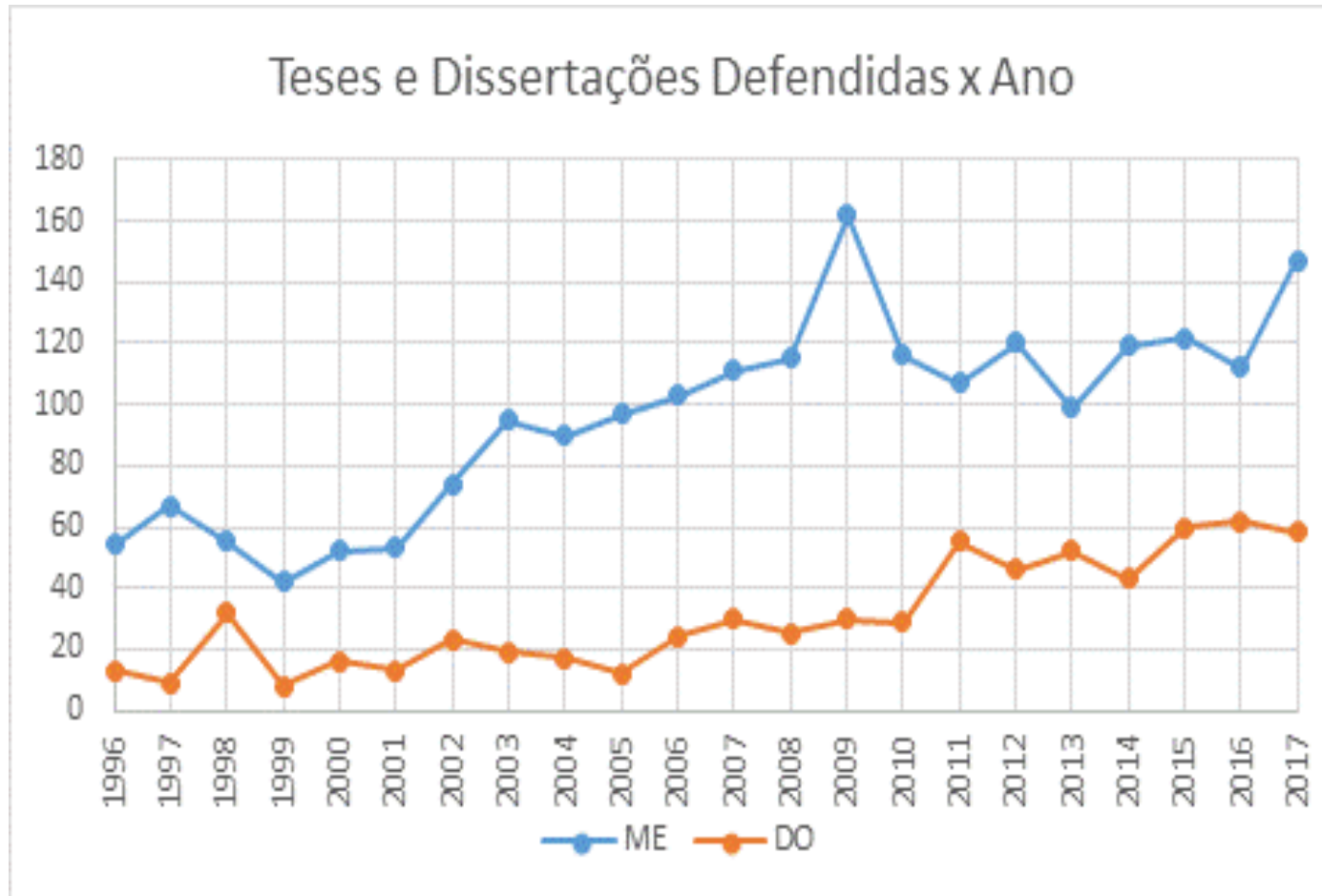




Graduação	Mestrado Profissional	Mestrado Acadêmico	Doutorado	Lato Sensu	Total
154	68	119	65	27	433

FORMANDOS ITA 2017





Master Thesis and Doctorate Dissertations in the last decades.

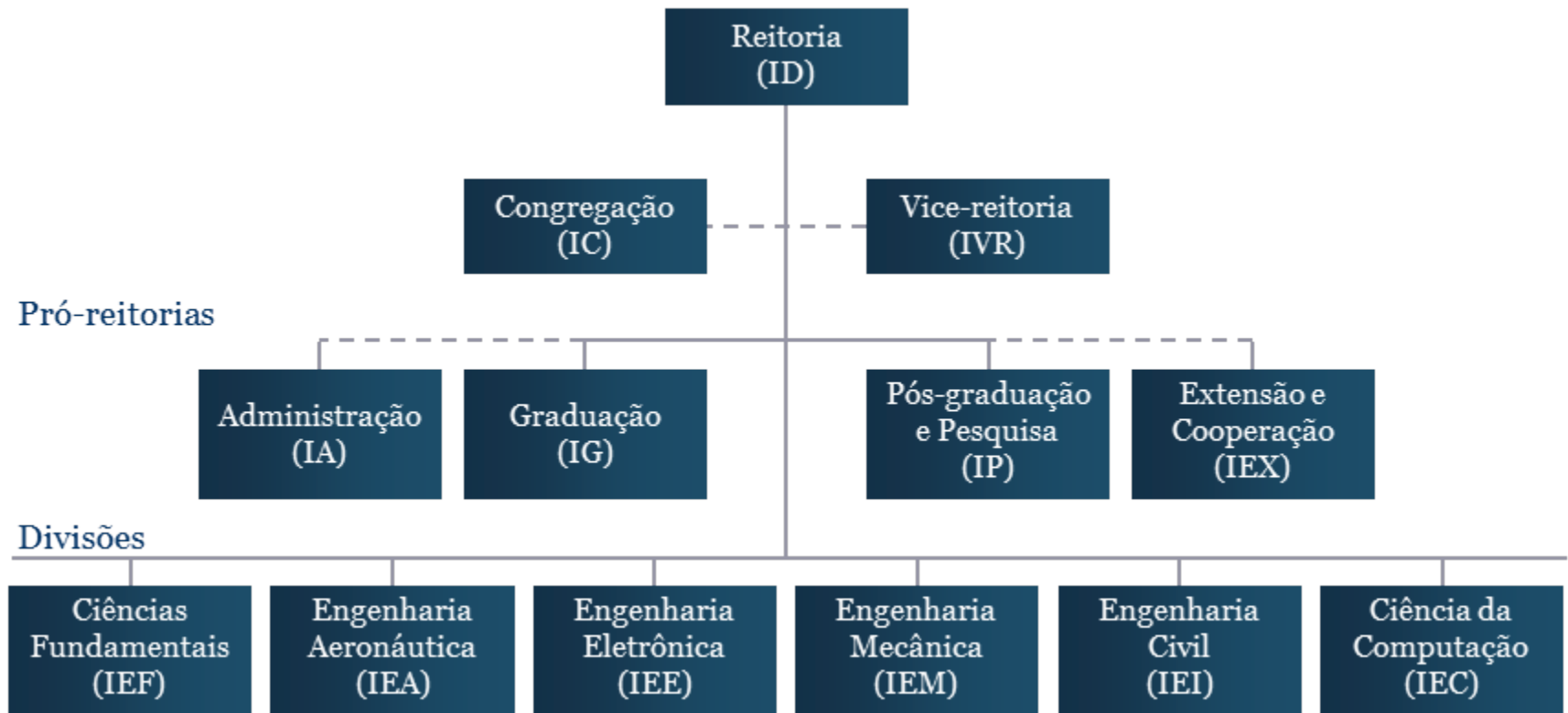
R&D infra structure evolution



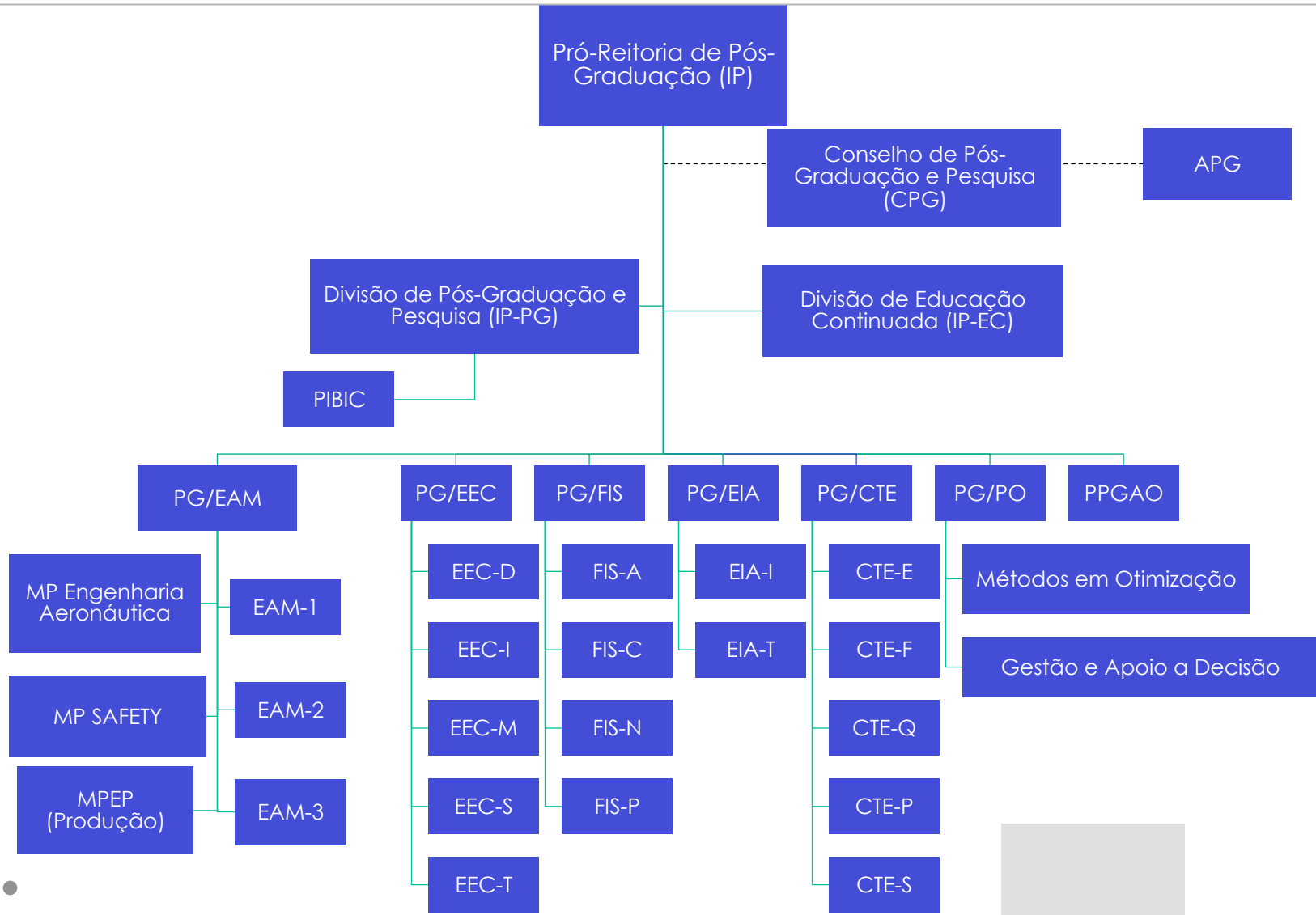
ITA campus aerial pictures 2004 and 2018, (source: Google Maps).

1. CCM – Centro de Competência em Manufatura, 2. LCFT - Laboratório de Computação em Fenômenos de Transporte, 3. LCPE – Laboratório de Combustão, Propulsão e Energia, 4. LNCA – Laboratório de Novos Conceitos Aeronáuticos, 5. LTF - Laboratório de Tecnologia de Foguetes, 6. LPL – Laboratório de Propulsão Líquida, 6. LPP – Laboratório de Processo e Plasmas, 7. LSA - Laboratório de Sistemas Aeroespaciais, 8. Novo Prédio da Ala Zero e 9. Novo Prédio das Ciências Fundamentais.

ITA Organogram



Pró-Reitoria de Pós-Graduação



Postgraduate Courses – Stricto Sensu

Vertical Programs



Postgraduate Courses – Stricto Sensu

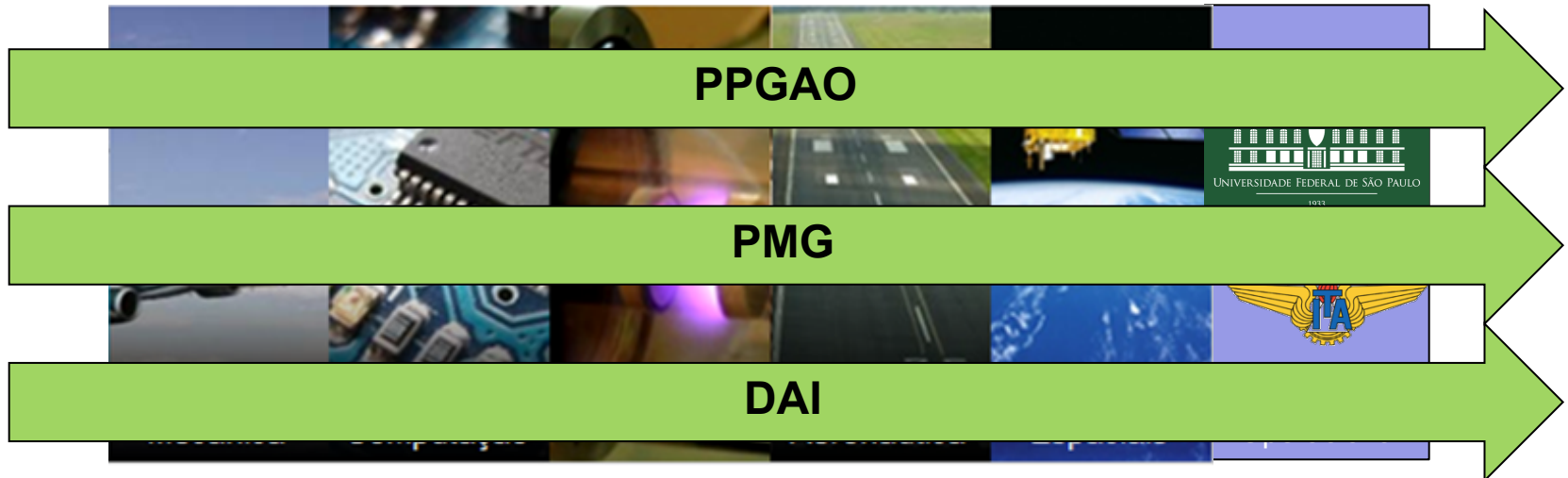
Horizontal Programs



PPGAO – Operational Applications Postgraduate Program

Postgraduate Courses – Stricto Sensu

Horizontal Programs



PPGA0 – Operational Applications Postgraduate program

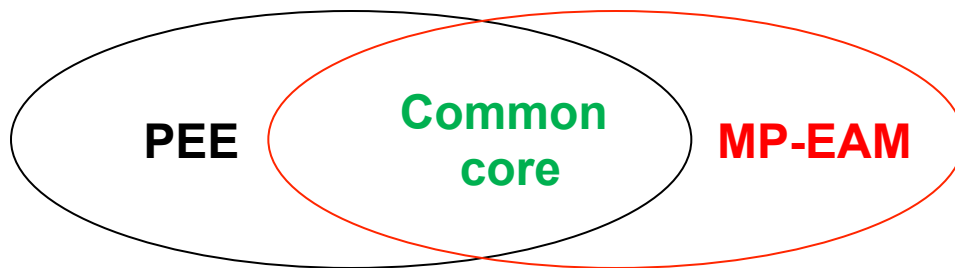
PMG – Undergraduate-Graduate integrated program

DAI – Industrial Doctorate Program

Cursos de Pós-Graduação – Stricto Sensu

Professional Master in Mechanical and Aeronautical Engineering - (MP-EAM)

Creation: 2002 in partnership with EMBRAER (PEE – Specialization Program in Engineering):



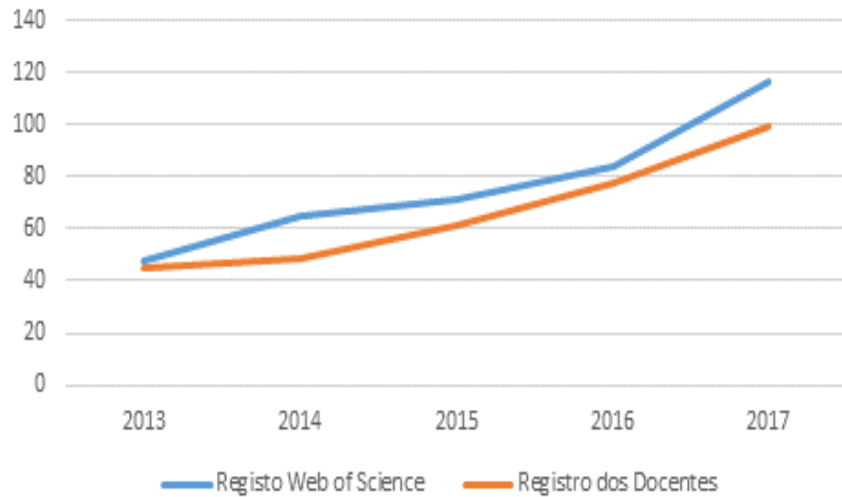
Concentration areas:

- Aeronautical Engineering – PEE
- Flight Safety and Continuous Airworthiness - MP-Safety

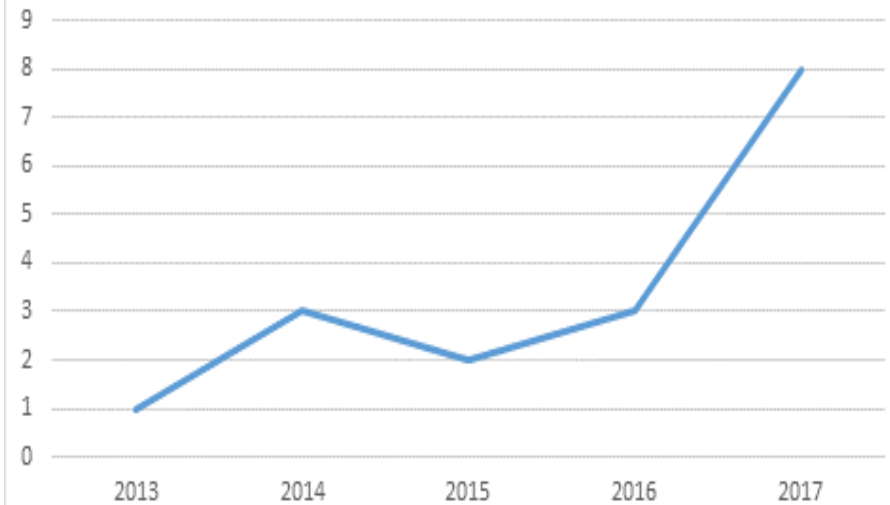


Internationalization

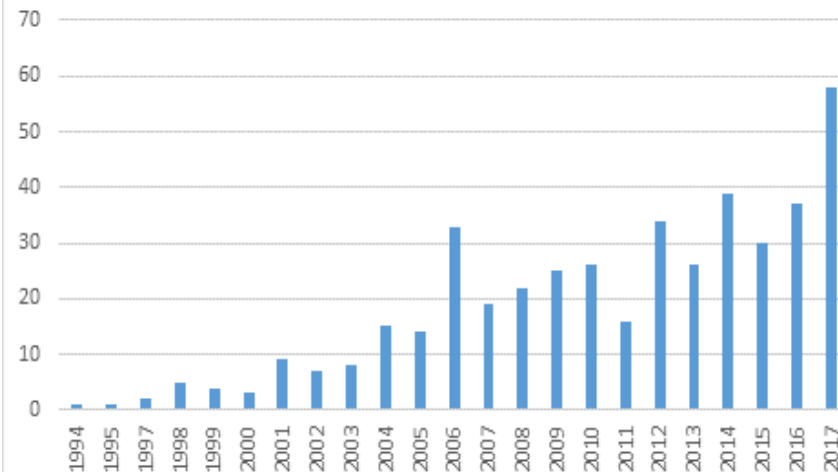
Publicações em Parcerias com Pesquisadores de Instituições do Exterior



Participação de docentes de instituições estrangeiras em defesas no ITA



Dissertações e Teses em Inglês





Internationalization Process

- ITA is an institution with a well-defined mission as it naturally immersed in a world of partnerships with research institutes and companies connected with the aerospace sector
- Out of a total of 62 agreements in vigor in March 2018, 38 were with foreign institutions, in other words, more than 50%. This reflects the already established institutional policy of internationalization adopted by the ITA administration



Endowed Chair Programs

- In 2014 an Endowed Chair Program, funded by a number of companies, was set up to attract renowned foreign institution researchers to ITA.
- So far, five chairs have been filled through two programs described as follows. The guest Professor of the program chaired by ITA-EMBRAER , CISB-SAAB consortium.
- The objective of this program is to foster an environment for research and innovation in aeronautics



Double Titling Agreements

- Double-Titling agreements at “Master” degree level:
 - École Polytechnique – France – Computer Engineering and Engineering– 01/12/2014,
 - ISAE – France, Aerospace Engineering – 09/07/2015,
 - Ecole Nationale des Ponts et Chaussées – Civil and Mechanic Engineering - 14/09/2015.
 - University of Twente - Netherland – Mechanical and Aeronautical Engineering – 01/02/2016,
 - L'École Nationale D'Ingénieurs de Brest - France – Computer, Electronic and Mechatronics Engineering – 11/04/2018



Internationalization Plan

- **CAPES PRINT CALL 2017/2018**
- Organization of a internationalization plan
- There are **four research themes** selected as guidelines for ITA internationalization plan
 - Theme 1 Green Aviation
 - Theme 2: Autonomous Systems
 - Theme 3: Mobility and Sustainability
 - Theme 4: Space and Fundamental Sciences





Internationalization Plan

Under the Themes 16 cooperation projects during four years, basically predicting basically scholarships per year:

Postdoctoral (12 months)

PhD - Sandwich (12 months)

Young Visiting Professor – Abroad (6 months)

Senior Visiting Professor – Abroad (6 months)

Visiting Professor at ITA (2 months)

Training (2 months)





Cooperation Project Example

- Name of the project: Sub-atomic Physics
- Start date 11/01/2018 End date 06/30/2022
 - Description: sub-atomic physics is part, are associated with the understanding of the phenomena that happen in space and whose dynamics is governed by fundamental interactions, which still need theoretical and experimental understanding.
 - Phenomena that also occur in the space environment and which require a strong academic basis in cosmology, astrophysics, fundamental interactions, hadrons physics, nuclear structure and reactions, complete and incomplete nuclear fusion processes, etc.
 - These phenomena have an impact on the control of cosmic radiation effects on circuits, systems and sensors, as well as astronauts involved in space exploration, where nuclear reaction induced by the energetic particles from cosmic radiation occurs



Cooperation Project Example

- Name of the project: Sub-atomic Physics
 - Start date 11/01/2018 End date 06/30/2022
- The specific topics in Sub-Atomic Physics contemplate:
 - (a) the quantum physics of few and many bodies for the nuclei description;
 - (b) hadrons (quantum chromodynamics) and systems of many atoms;
 - (c) properties of nuclear clusters;
 - (d) correlations between quarks or nucleons;
 - (e) compact stars and their interior;
 - (f) nuclei synthesis processes (which in face of new astronomical results from space missions and recent observation of gravitational waves, require theoretical explanation regarding the phenomena involved).



Thank you

www.ita.br/posgrad

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