Pilot remote access experiments at UNESP and ITA - Brazil

Marco Aurélio Alvarenga Monteiro, UNESP
José Silvério Edmundo Germano, ITA
Pedro Carlos da Silva Euphrásio, ITA
Daisy Hirata, ITA

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São Paulo State University → one of the largest university in Brazil. Founded in 1976, is a model of a multicampus university with 34 units in 24 cities.

Like USP and UNICAMP, is supported by the State Government of São Paulo offering free higher education.

More than 3500 academics, ~35 666 undergraduate and ~11 043 graduate students

179 undergraduate programs, 205 graduate programs (master, professional master and PhD)

There are also students in courses broadly promoted by its Center for Distance Learning (Nead).

Campus Guaratinguetá - The school of engineering (FE), installed in the heart of ‘Vale do Paraíba’. Brazilian’s industrial island of excellence for automobile, aeronautics and chemical industries are the UNESP’s partner students from Engineering (Civil, Materials, Production, Electric and Mechanics Engineering) and Physics and Mathematics.
New Centre dedicated to remote access experiments and Informatics Lab.

- Experiments for science teachers for training
- 60 million children (15-17)
- 80% of schools do not have lab classes.

1. Ohm’s Law
2. Data is collected through an arduino

http://weblabfeg.url.ph/Experimentos/
1st institute of DCTA aiming to provide high level education and research in ST areas of aerospace sector.

Created in the 50s, based on MIT’s education model, ITA has a tradition in pioneering experiences in engineering-related education in Brazil.

Regular undergraduate courses in engineering: Aeronautics, Electronic, Mechanics, Civil, and Computer Sciences. Master and Doctor programs in Engineering and Physics. Extension and specialisation courses are also offered.

Today: 174 academics, 180 undergraduate students/year, ~ 1200 graduate students (Master, PhD and MBA)

ITA offers full time scholarship education to all undergraduate students. Entrance examination with ~ 80 applicants/place. Full time dedication.
ITA and the Future

- Mandate from upper level Brazilian government to duplicate the number of undergraduate students and focus in innovation.

- Duplication will demand adding infrastructure and labs, and proposition of new teaching methods.

- Challenges:
  - Internationalisation
  - Expanding with quality
  - Cooperation with industry
  - Engineering education → new teaching methods using moodle, pbl, remote access experiments and so on....

- Alignment with strategic areas
LabView and Arduino in a Peltier’s Module experiment
Thank you!