



## WORK OFFER

Ref. No. CZ-2020-100016

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### Employer Information

**Employer:** Brno University of Technology  
Faculty of Electrical Engineering and Communication  
Technická 12  
  
61600 Brno  
Czech Republic

**Website:** <https://www.fekt.vut.cz/en/home>

**Location of placement:** FEEC, Technicka 12, Brno, Czech Republic  
**Nearest airport:** Prague, Vienna  
**Working hours per week:** 10.0  
**Working hours per day:** 2.0

**Number of employees:** 3000

**Business or products:** university education

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### Student Required

**General Discipline:** 14C-ELECTRICAL AND ELECTRONICS ENGINEERING  
27-MATHEMATICS AND STATISTICS

**Completed years of study:** 3

**Field of Study:** 14.1001-Electrical and Electronics Engineering  
14.1099-Electrical, Electronics and Communications Engineering, Other.  
27.0301-Applied Mathematics, General.

**Student status requirements:** Required during the whole period of internship

**Language required:** English Good

**Required Knowledge and Experiences:**

Matlab, time- and frequency-domain signal processing, signal feature extraction, RC and RCL circuits

**Other requirements:**

A Skype interview with the applicant is required to discuss the topic and interest of the applicant.

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### Work Offered

The topic of the internship is focused on parameters' determination of so called fractional order elements, which become essential for modern circuit design but also may describe and are used to model various real systems stemming e.g. from biomedicine, agriculture, material performance, etc.

Although dedicated measurement devices may be used for direct impedance measurements may be used to determine the parameters of any one-port element, such devices are extremely expensive, mainly once they should perform the measurement at very low frequencies. Therefore, using simple measurement setups; two-ports that utilizes generally unknown fractional order element of a biological tissues, the theory to determine the parameters of fractional order elements will be used and verified as suitable measurement approach for such parameter determination. The parameter determination is expected to be determined both from time- and frequency-domain signal responses of the two-ports, while it will be fed by signals of various patterns.

The project is generally standalone under supervision. Anyway, during the measurements and math using Matlab, trainee may be in contact with other colleagues at the department, who are team members of the projects dealing with signal processing, fractional calculus, experimental measurements, etc.

**Number of weeks offered:** 6 - 8

**Working environment:** Research and development; Office work

**Within the months:** 01-JUL-2020 - 18-SEP-2020

**Gross pay:** 10000 CZK / Month

**Or within:** -

**Deduction to be expected:** 0

**Company closed within:** -

**Payment method / time of first / payment:**

**Latest possible start date:**

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### Accommodation

**Canteen at work:** Yes

**Expected type of accommodation:** Student dormitory

**Estimated cost of lodging:** 5000 CZK / Month

**Accommodation will be arranged by:** IAESTE

**Estimated cost of living incl. lodging:** 10000 CZK / Month

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### Additional Information

Please follow the instructions for preparing nomination documents and the visa process in the attached document.

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### Nomination Information

**Deadline for nomination:** 15-MAR-2020

**Date:** 31-JAN-2020

**On behalf of receiving country:** Milan Solik



IAESTE

Czech Republic

## Nomination guide for applications to the Czech Republic

Dear student,

*the purpose of this document is to provide guidance for the preparation of your nomination documents for the internship in the Czech Republic. Please follow the steps listed below, before sending your nomination to us.*

### Structure of nomination documents

All documents must be in **English**.

The final nomination document needs to have sections listed below, please keep the order of individual sections as listed. Before sending your nomination please check if all the pages have the same size.

1. *Work offer*
  - i. The original document that is available on Exchange Platform
2. *Student nomination*
  - i. Use the digital version of the document and not one that is filled out by hand
  - ii. Make sure the dates and duration you selected to fit into those specified in the work offer
3. *Motivation letter\**
  - i. Focus on the work-related information
  - ii. At most 1 page
4. *CV\**
  - i. Use a structured form of CV
  - ii. At most 2 pages
5. *Transcript of records*
  - i. The document must be in English, verified by your university (stamp and signature needed)
  - ii. Grade scale must be included
6. *Language certificate*
  - i. Do not upload certificates older than 2 years
  - ii. Upload certificates for all languages required by work offer
7. *Confirmation of enrollment*
  - i. Work offer may require this document to be valid throughout the whole period of internship
  - ii. The document must be in English, verified by your university (stamp and signature needed)
8. *Recommendation letter \*(only if required by the employer)*
9. *Scan of valid passport/ID*
  - i. Page with the travel documents should be placed on a page with size as the rest of documents
  - ii. The travel document should be placed in the upper left corner
10. *Passport-sized photo*
  - i. The Photo should be added in the same way as your travel documents
  - ii. Use a formal picture, no photos with friends or holiday pictures!

Any other relevant (!! ) documents should be added to the end of the nomination document.



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Czech Republic

\*Beware the motivation letter and CV are the only documents written solely by you. Make sure these documents contain information relevant to the employer and check for any grammar mistakes.

**All documents should be combined into one PDF, sent using the Exchange Platform. Documents sent using other ways of delivery will not be considered as proper nomination documents and will not be processed in compliance with General Data Protection Regulations (GDPR).**

## Visa process

*Listed below you will find government websites dedicated to the visa process. Keep in mind that this process usually takes a quite long time, apply for your visa as soon as possible. Thanks to accreditation by MEYS, you can apply for a student visa. Upon acceptance by the employer, we will support your claim for a student visa with an invitation letter and confirmation of accommodation.*

- ❖ Visa is not required for citizens of the EEA (EU, Switzerland, Liechtenstein, Iceland, Norway)
- ❖ Short-term Schengen visa (up to 90 days)
  - Countries with a visa exception
  - Countries with a visa obligation
- ❖ Long term visas (over 90 days) are obligatory for all countries except for EEA countries.