Technical University of Košice
Faculty of Electrical Engineering and Informatics
Department of Electrical Power Engineering

Co-funded by the
Erasmus+ Programme
of the European Union

ESSENCE – Erasmus+ on Smart Energy Systems

Establishing Smart Energy System Curriculum at Russian and Vietnamese Universities

Vytvorenie kurikula pre študijný program „Inteligentné energetické systémy" na univerzitách v Rusku a vo Vietname

Poráč PARK, Poráčska dolina, 8.-9. novembra 2019

Technical University of Košice
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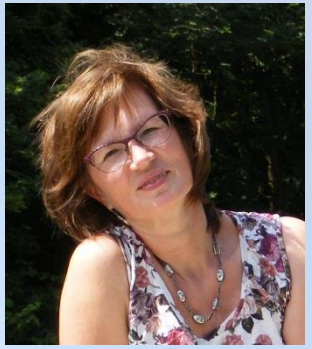
Names of P3 staff members:

- ***Dr.h.c. prof. Ing. Michal KOLCUN, PhD.***
  - P3 leader; P3 academic supervision
  - Head of the Department of Electrical Power Engineering (EPE) at FEI TU of Košice



- ***prof. Ing. Iraida KOLCUNOVÁ, PhD.***
  - professor at Department of Electrical Power Engineering (EPE) at FEI TU Košice

- ***Ing. Dušan MEDVEĎ, PhD.***
  - P3 administrative coordination
  - assistant professor at Department of Electrical Power Engineering (EPE) at FEI TU Košice

ESSENCE project overview

The overall aim of the ESSENCE project is to modernise the master-level curriculum in smart energy systems (SES) at Russian and Vietnamese universities in close cooperation with the industry and in accordance with the European Qualification Framework (EQF). Within the framework of the project, a core curriculum will be developed to be embedded into existing master programmes and implemented during the third year of the project life. By curriculum development, the partners will draw on specific assets of each consortium member and use the European experience in the creation of educational programmes aligned with the Bologna process.

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- The project is funded under the Erasmus+ Programme. **K**ey **A**ction **2**: Cooperation for innovation and exchange of good practices. Capacity Building in the field of higher education
- The project formally started on **15 October 2017**; its duration is 3 years.
- Project budget: **EUR 856 328** from the EC
- P3 (TUKE) budget: **EUR 49 600** from the EC

ESSENCE project overview

Within the framework of the project, a **core curriculum** will be developed to be embedded into **existing master programmes** and implemented during the third year of the project life (academic year **2019/2020**).

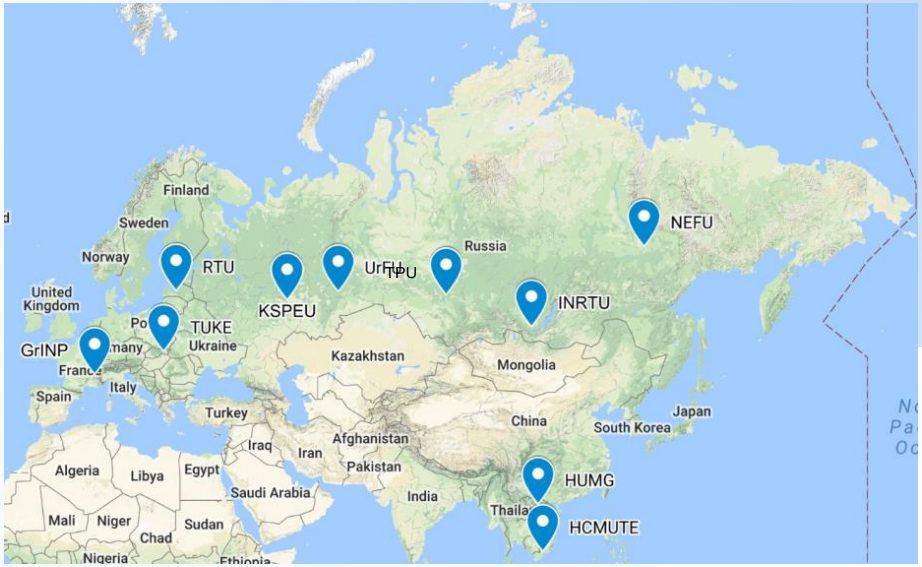
The core curriculum will consist of **9 courses** (syllabi and teaching materials) and an **industrial practical training course** with the average weight of each course being 3-6 ECTS credits and the total weight up to 45 ECTS credits.

The content of the practical course will be harmonized with the core curriculum and the expectations of the industry by incorporating appropriate learning outcomes and step-by-step navigation materials.

To ensure the most efficient adaptation of graduates to the professional life as well as the involvement of the industry into the programme implementation and to help designing an individualised industry involvement track, the Industry Involvement Guide will be developed as accompanying materials for the practical course.

This Guide will help the industry to assess the learning outcomes attained by a student; it will help the student to understand the expectations of the industry and provide very useful guidance for the start of a career and will help a university to organise a student internship in accordance with the goals of the modernised curriculum and the vision of the industry.

Consortium



10 Partners

5 countries

plus 1 associated partner

- Rīgas Tehniskā Universitāte
  P1 RTU
  coordinator

- Institut Polytechnique de Grenoble
  P2 Grenoble INP

- Technicka Univerzita v Kosiciach
  P3 TUKE

- Tomsk Polytechnic University **P4 TPU**
  RU coordinator
- Irkutsk National Research Technical University
  P5 INRTU
- Ural Federal University named after the first President of Russia B.N.Yeltsin **P6 UrFU**
- Kazan State Power Engineering University
  P7 KSPEU
- North-Eastern Federal University named after M.K.Ammosov **P8 NEFU**

- Ho Chi Minh City University of Technology and Education
  P9 HCMUTE
  VN coordinator
- Hanoi University of Mining and Geology
  P10 HUMG

Associate Partner
Siemens Moskva

Activities of P3 (TUKE)

- **WP1**: development of questionnaire for self-assessment of RU and VN universities, situation analysis at P6, P7 and P8; assessment visits; selection and assignment of courses; **passed**
- **WP2**: validation of equipment lists for P6, P7 and P8; **in process ...**
- **WP3**: development and delivery of Webinar in advanced teaching techniques, organization of training in curriculum development for 6 RU and/or VN staff; **in process ...**
- **WP4**: hosting student summer school; **in preparation**
- **WP5**: peer-review of 4 courses, analysis of curriculum pilot implementation for P6, P7 and P8; quality assurance visits; **in preparation**
- **WP6**: update of related information on TUKE web-site, participation in dissemination conference; signing agreements; **passed**
- **WP7**: assignment of project team, financial and progress reporting, day-to-day coordination, participation in coordination meetings. **in process ...**

Cooperation arrangements, management and communication

- According to A1.2.2 there ware realized Assessment visits (Kazan State Power Engineering University **KSPEU**, North-Eastern Federal University **NEFU**, Ural Federal University **UrFU**)
- TUKE (P3) will train 3 RU and 3 VN staff (A3.2.1) (**14.-18. May 2018**)
- TUKE (P3) will organize a **webinar** in advanced teaching techniques for teaching staff in partner countries (A3.1.1, A3.2.1) (**end of November 2018?**)
- TUKE (P3) will hosts the **teachers' mobility**. Summer school (A4.3.3) (for P1, P2 and P3; **June/July 2020?**)
- TUKE (P3) will hosts the **students' mobility**. Summer school (A4.3.2) (for students of P1-P10; **June/July 2020?**)

Thank you for your attention

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