

## **Protocol of ITG Energy meeting**

November 16, 2017

Online meeting of BRICS NU International Thematic Group on Energy was held on WebEx internet platform on November 09 and November 16, 2017. The meeting was arranged by National Research University “Moscow Power Engineering Institute”, Russia. The meeting was supervised by ITG Energy coordinator Prof. Igor Zhelbakov. The following universities took part in the ITG Energy meeting by their representatives:

Federal University of Santa Catarina, Brazil

Federal University of Viçosa, Brazil

National Research University “Moscow Power Engineering Institute”, Russia

Peoples Friendship University of Russia, Ecological Faculty, Russia

National University of Science and Technology“ MISIS”, Russia

Moscow Institute of Physics and Technology (State University), Russia

Institute of Science, Banaras Hindu University, India

HoHai University, China

North China University of Water Resources and Electric Power, China

North-West University, South Africa

1. Since the 2<sup>nd</sup> BRICS NU Conference all partner universities of ITG Energy have worked on a new roadmap for 2017-18 academic year. The draft roadmap was located at the ITG Energy internet platform [itgenergy.mpei.ru](http://itgenergy.mpei.ru) for consideration. Now ITG Energy meeting approved the final version of the 2017-18 roadmap, which was send to all participants in advance. This final version should be located at the ITG Energy internet platform, sent to all partner universities and also sent to BRICS NU International Governing Board through Russian National Coordinating Committee by MPEI.

2. Representatives of all countries made presentations about government support for development and operation of joint Master programs, which should be elaborated by ITG Energy partner universities on bilateral or multilateral base. No one university from any BRICS country has any information about such support for development of joint Master programs. But most governments have special support for foreign students, which could be used for students exchange within joint Master programs.

Brazil: Any foreign student can apply for scholarship at Brazil Embassy. In Federal University of Santa Catarina foreign students are exempt of tuition fee.

Russia: Russian state scholarship for foreign students covers tuition fee and provides low accommodation fee and some month allowance. Such scholarship could be obtained on competitive basis within each country. Some number of scholarships may be allocated for BRICS NU joint students. Accommodation is provided by host university in student's hostels.

India: Foreign students can apply to Indian Council of Cultural Relations for scholarship which covers tuition fee.

China: Chinese Government Scholarship is available for international students as well as China province government scholarship and scholarship programs of certain university. Scholarships for foreign students are provided on competitive base.

South Africa: Government provides support.

3. One of the main tasks of BRICS Network University is to enhance educational opportunities of students by adding best disciplines from partner universities to their curriculum within joint programs. Practically students should have a chance to spend a semester or two in partner university during regular studies. This may lead to double diploma program or such exchange student may get certificate from partner university and diploma/degree from native university.

Exchange programs of BRICS NU should be held in English language.

In order to start development of joint programs we may use existing programs in partner universities, which are delivered in English. Nowadays 4 Master programs are considered as ITG Energy joint Master programs:

- **Sustainable Thermal and Energy Systems**, hosted by National Research University "Moscow Power Engineering Institute", Russia
- **Operation and Management of Environmentally Safe Thermal Power Plants**, hosted by National Research University "Moscow Power Engineering Institute", Russia
- **Solid Waste as Renewable Energy and Industrial Energy Efficiency Source**, hosted by Peoples' Friendship University of Russia, Russia
- **Science and Materials of Solar Energy**, hosted by National University of Science and Technology "MISIS", Russia

Details of these programs will be allocated at the ITG Energy internet platform [itgenergy.mpei.ru](http://itgenergy.mpei.ru) to be available for all partner universities.

Any partner university of ITG Energy may send exchange students to study some modules of abovementioned programs. In this case such programs could be considered as



multilateral joint programs. Later it could be transformed in bilateral programs with more tight coordination of student's exchange.

4. ITG Energy partner universities endorse abovementioned joint Master programs and authorize MPEI to submit these programs through Russian NCC for approval of International Governing Board.

5. HoHai University provides 6 Master programs and 6 Doctoral programs in English medium in the following fields:

- Power System Operation and Control
- Automation of Distribution Power Systems
- Fault Diagnosis and Information Processing for Electrical Equipment
- Novel AC/DC Electrical Drive System
- Renewable Energy Conversion System
- Overvoltage and Protection of Power System

Master program is 3 years long and requires at least 28 credits of courses. Doctoral program is 4 years long and requires 15 credits of courses.

6. North China University of Water Resources and Electric Power also provides some programs in English medium.

7. Joint degrees are not allowed in all countries, so joint programs based on student's exchange should lead to certificate from partner university and diploma/degree from native university or double diploma (diploma from each partner university).

8. ITG Energy asks BRICS NU International Governing Board to persuade all BRICS governments to allocate some funds in order to support BRICS Network University including development of joint programs and student's exchange.

9. ITG Energy members wish to note, that development of joint research projects is obstructed by different deadlines for applications to national research support. We ask BRICS NU International Governing Board to persuade all BRICS countries to coordinate such calls and deadlines in order to allow joint research project applications.

10. The present Protocol includes all amendments sent by partner universities after online meeting.

Head of the meeting

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Prof. Igor N. Zhelbakov



National Research University "Moscow Power Engineering Institute", Russia