



**AGH University of Science and Technology, KRAKOW, POLAND**  
**UNESCO CHAIR FOR SCIENCE, TECHNOLOGY AND ENGINEERING**  
**EDUCATION AT THE AGH UNIVERSITY OF SCIENCE AND TECHNOLOGY**  
**KRAKOW, POLAND**  
A. Mickiewicza Ave 30, PL 30-059 Krakow, Poland  
E-mail: unesco@agh.edu.pl

**UNESCO AGH Fellowships ed. 2012-B in Engineering**  
**Project Proposal 6 months**

**Naukowa oferta stypendialna UNESCO - AGH 2012 B**  
**dla młodych naukowców z krajów rozwijających**

UNESCO - AGH 2012 Project B: promoting human resource capacities in the developing countries through intensive training and to enhancing international understanding and friendship among peoples of the world and the people of Poland

(in English)

1. Project title:       Transportation system telematics

Field of research:     Automation, Transport Engineering, *mechatronics, mechanical engineering, automation, transport education*

Number of fellowships with free tuition sponsored by UNESCO:   2

2. Name of institution: *AGH University of Science and Technology,*  
*Faculty of Mechanical Engineering and Robotics*

Full address: A.Mickiewicza Av. 30, PL 30-059 Krakow, Poland

3. Name, title and full contact data of project supervisor:

*prof. dr hab. inż. Janusz Szpytko*

Tel.: +48 12 6173103

Fax: +48 12 6173531

E-mail: *szpytko@agh.edu.pl*

*www.agh.edu.pl*

4. Project duration:   6 months

Proposed starting date: 1.10. 2012 /exact date to be agreed upon by the selected fellows and host Institution/

Language:           English

Scientific contents: *individual research programme under supervision of tutor (see next page p.8)*

5. Developing countries (specification): *UNESCO Member States please specify if any Africa, Asia, Pacific Region, Latin America, Caribbean countries*

6. Academic requirements: Candidates should have a B.Sc. or M.Sc. degree,  
please specify in more details .....

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### 7. Qualifications required: *for example*

*be proficient in reading and writing in English;  
be not more than 40 years of age; and be in good health, both physically and mentally;  
be able to write computer programs for example in C++, ProEngineer, or be familiar with MatlabSimulink, or CA-D/M, FEM, have a general knowledge related to telematic in transportation, or construction testing and measurement*

### 8. Project description (in English):

*project description optional:*

to design and testing in laboratory the intelligent control solutions of selected transportation device, to design and testing the measurement systems of selected exploitation parameters of selected transportation device, to design and testing telematic system of transportation system, to testing and re-design the rail - wheel set laboratory stand

*R&D results:*

improvement in safety and reliability of transportation systems and devices

*other outputs:*

publications, future projects

### 9. Others information:

Stamp of the AGH UST Faculty

Project Supervisor  
(signature)

Prof. dr hab. inż. Janusz Szpytko

Place and date: Krakow, January 31, 2012

Dean of the Faculty  
(signature and stamp)

prof. dr hab. inż. Janusz Kowal

AKADEMIA GÓRNICZO-HUTNICZA  
im. Stanisława Staszica w Krakowie  
WYDZIAŁ INŻYNIERII  
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