

**Indian National Commission for Cooperation with UNESCO
Government of India
Ministry of Human Resources Development
Department of Higher Education**

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UNESCO Headquarters, Paris has invited nominations for the UNESCO/
Poland Co-Sponsored Fellowships Programme in Engineering, cycle 2017.
Relevant details are on the next page.

Nominations should be forwarded to the Indian National Commission
for Cooperation with UNESCO (INCCU) latest by **31st March, 2017** (and should
not be sent directly to UNESCO) at the following address for further
consideration and onward transmission to UNESCO Headquarters, Paris,
France.

**Mr. Saroj Kumar Choudhary
Section Officer (INC)
Ministry of Human Resource Development
Room No. 203 'C' Wing
Shastri Bhavan,
Dr. Rajendra Prasad Road
New Delhi - 110115
E-mail: inc.edu@nic.in**



United Nations
Educational, Scientific and
Cultural Organization

Organisation
des Nations Unies
pour l'éducation,
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Organización
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Организация
Объединенных Наций по
вопросам образования,
науки и культуры

منظمة الأمم المتحدة
للتربية والعلم والثقافة

联合国教育、
科学及文化组织

The Assistant Director-General for External Relations and Public Information



UNESCO Chair for
Science, Technology
and Engineering
Education
Krakow, Poland



To: National Commissions for
UNESCO of Invited Member
States (see Annex I)

Ref. : ERI/MSP/PPF/FLP/LZF/17.002

14 February 2017

Subject : UNESCO/POLAND Co-Sponsored Fellowships Programme in Engineering
Cycle 2017

Sir/Madam,

I am pleased to inform you that, within the framework of the UNESCO/Poland Co-Sponsored Fellowships Programme in Engineering, cycle 2017, the Polish National Commission for UNESCO and the UNESCO Chair for Science, Technology and Engineering Education at the AGH University of Science and Technology in Krakow have placed at the disposal of certain Member States (see Annex I) **forty (40)** fellowships of **six (6)** months duration each, in Poland, starting on 2 October 2017. The beneficiaries of these fellowships will be given the opportunity to undertake an individual research programme in the field of **Science, Technology and Engineering**.

The annexes to this letter provide detailed information regarding the qualifications required, the facilities offered, the general conditions governing the award of fellowships and the procedure for submission of applications as well as different fields of research proposed by the selected host institution.

This programme is offered in open competition. Only candidates with the necessary qualifications, who meet the criteria stipulated in the Annexes, will be selected. Given that UNESCO attaches high priority to gender equality, special attention should be paid to women's candidatures for an equal representation. Applications should be addressed by mail to Mr Stoyan Bantchev, Chief of the Participation Programme and Fellowships Section (UNESCO, 7, Place de Fontenoy – 75352 Paris 07 SP, France) **by 14 April 2017 at the latest**.

A scanned copy should be sent by e-mail (s.bantchev@unesco.org; l.zas-friz@unesco.org; b.qin@unesco.org and unesco3@agh.edu.pl).

Yours sincerely,

Eric Falt

Enclosures:

- Annex I (List of Invited Member States and requirements)
- Annex II (Terms and Conditions)
- Annex III (Details of 50 proposed courses)
- Information sheet and check list
- UNESCO Fellowship Application Form
- Certificate of Language Knowledge

UNESCO/POLAND CO-SPONSORED FELLOWSHIPS PROGRAMME 2017

List of Invited Member States per region and field of research as determined by the Polish authorities

| Project No. | FIELD OF RESEARCH/PROJECT TITLE (Number of Fellowships) | INVITED MEMBER STATES PER REGION | LIMIT OF AGE | ACADEMIC REQUIREMENT |
|--------------------|---|---|-------------------------------------|--|
| 01 | Decision Engineering (2) <i>Problem base engineering</i> | Africa, Asia and the Pacific, Latin America and the Caribbean | no more than 40 years of age | B.Sc. or M.Sc. degree <i>Be able to use MS Office and drawing programs; a general knowledge related to engineering problems.</i> |
| 02 | Automation in Mining Devices (4) <i>Mining devices automation</i> | Africa, Asia and the Pacific, Latin America and the Caribbean | no more than 40 years of age | B.Sc. or M.Sc. degree in Eng. <i>Principle knowledge about automation in mining devices.</i> |
| 03 | Mining devices (4) <i>Selected problems in operation of mining devices</i> | Africa, Asia and the Pacific, Latin America and the Caribbean | no more than 40 years of age | B.Sc. or M.Sc. degree in Eng. <i>Principle knowledge about mining devices.</i> |
| 04 | Transport Engineering (4) <i>Availability problems in transportation systems and devices (2)</i> | Africa, Asia and the Pacific, Latin America and the Caribbean | no more than 40 years of age | B.Sc. or M.Sc. degree <i>(04) Be able to write computer programs, for example, be familiar with CAD/CAM/CAE; A general knowledge related to transportation programmes, including safety and reliability problems mechatronics.</i> |
| 05 | <i>Transport System Telematics (2)</i> | | | <i>(05) Candidates should have degree in mechanical/ transport engineering/ automation; be familiar transport telematics; be able to analyse reliability, maintain ability and availability of machine maintenance as well as modelling.</i> |
| 06 | Manufacturing Transport Engineering (2) <i>Transportation technology system and devices.</i> | Africa, Asia and the Pacific, Latin America and the Caribbean | no more than 40 years of age | B.Sc. or M.Sc. degree <i>Be able to write computer programs (be familiar with CAD/CAM/CAE), have a general knowledge related to transportation programmes, including safety and reliability problems.</i> |
| 07 | Drilling Engineering (2) <i>Drilling and hydraulic fracturing</i> | Africa, Asia and the Pacific, Latin America and the Caribbean | no more than 40 years of age | B.Sc. or M.Sc. degree in Eng. <i>Principle knowledge in engineering preferably in petroleum, earth engineering, physics, mathematics or computer sciences. Be able to solve problems using mathematical methods.</i> |
| 08 | Sociology/ Economic Sociology and Economics (1) <i>Interrelations between new technologies and social, economic life in globalizing world.</i> | Africa, Asia and the Pacific, Latin America and the Caribbean | no more than 35 years of age | B.Sc. or M.Sc. degree in humanities or social sciences or economy <i>General knowledge in world economics</i> |
| 09 | Sociology/ Humanities, Political Sciences; Sociology (1) <i>Social and Political Dimensions of the Cyberspace.</i> | Africa, Asia and the Pacific, Latin America and the Caribbean | no more than 40 years of age | B.Sc. or M.Sc. degree in humanities or social sciences or economy <i>General knowledge in Internet: Social Media.</i> |
| 10 | Foundry Engineering/ Polymers in foundry engineering Aluminosilicate in green sands system, moulding and green sands (1) <i>Analysis of selected properties of the polysaccharide - aluminosilicate binder in sand grains</i> | Asia and the Pacific, Latin America and the Caribbean | no more than 25 years of age | B.Sc. or M.Sc. degree in foundry or metallurgical engineering, materials engineering. <i>General knowledge in chemistry of polymers and aluminosilicate, materials engineering, foundry engineering</i> |
| 11 | Foundry Engineering/ Continous casting of steel, solidification, modelling of generation process of non-metallic inclusion (2) <i>Modelling of the generation process of non-metallic inclusion in CCS</i> | Asia and the Pacific, Latin America and the Caribbean | no more than 30 years of age | B.Sc. or M.Sc. degree studies in computer science, specialty programming. <i>General knowledge in programming for and automated systems0 Programming languages: Delphi, HTML; Programming tools: Microsoft Visual C++/C.</i> |

| Project No. | FIELD OF RESEARCH/PROJECT TITLE (number of fellowships) | INVITED MEMBER STATES PER REGION | LIMIT OF AGE | ACADEMIC REQUIREMENT |
|-------------|--|---|-------------------------------------|--|
| 12 | Programming Languages/ Delphi, HTML; Programming tools: Microsoft Visual C++, metallurgy, steelmaking process (2) <small>Modeling of the removal of non-metallic inclusions to slag.</small> | Asia and the Pacific, Latin America and the Caribbean | no more than 32 years of age | B.Sc. or M.Sc. degree studies in computer science, specialty programming. <small>General knowledge in programming for and automated systems. Programming languages: Delphi, HTML; Programming tools: Microsoft Visual C++.</small> |
| 13 | Ceramics Composites/ Ceramics matrix Composites (1) <small>Refractory Metal Silicides for Ceramic-Ceramic Joining.</small> | Asia and the Pacific | no more than 35 years of age | B.Sc. or M.Sc. degree <small>General knowledge in material science and/or physics.</small> |
| 14 | Geology/ Mineralogy, Geochemistry (6) <small>Tungsten deposit in Rwanda.(1)</small> | Africa | no more than 40 years of age | B.Sc. or M.Sc. degree in materials science or chemistry. <small>General knowledge in geology, mineralogy, geochemistry, mineral deposit</small> |
| 15 | <small>Stratiform copper deposit in Iran (1)</small> | Asia and the Pacific | no more than 35 years of age | B.Sc. or M.Sc. degree in materials science or chemistry. <small>General knowledge in geology, mineralogy, geochemistry, mineral deposit</small> |
| 19 | <small>REE deposit in Viet Nam (1)</small> | Asia and the Pacific | no more than 35 years of age | (same as above) |
| 20 | <small>Tin deposit in Central Africa (1)</small> | Africa | no more than 35 years of age | (same as above) |
| 21 | <small>Chromite deposit in Viet Nam (1)</small> | Asia and the Pacific | no more than 35 years of age | (same as above) |
| 22 | <small>Pb-Zn deposit in Viet Nam (1)</small> | Asia and the Pacific | no more than 40 years of age | (same as above) |
| 16 | Geology (3) <small>Epithermal base to precious metal mineralization In the Iranian Orogenic Belts (1)</small> | Asia and the Pacific | no more than 35 years of age | B.Sc. or M.Sc. degree. <small>General knowledge in Iranian Geology and ore deposits; be familiar with EMPA and EDX analyses; student of economic geology; general knowledge on volcanic connected ore deposits; available to read and speak Farsi; Own samples for studying are REQUIRED.</small> |
| 17 | <small>PB-Zn deposit in Iran: Geological, Mineralogy and Geochemical characteristics (1)</small> | Asia and the Pacific | no more than 35 years of age | (same as above) |
| 18 | <small>Genetic type of nickel deposits in Iran. Mineralogy and Geochemical characteristics (1)</small> | Asia and the Pacific and Arab States | no more than 35 years of age | (same as above) |

| Project No. | FIELD OF RESEARCH/PROJECT TITLE (number of fellowships) | INVITED MEMBER STATES PER REGION | LIMIT OF AGE | ACADEMIC REQUIREMENT |
|-------------|--|---|-------------------------------------|---|
| 23 | Computer Vision (2) Online Footstep Planning and navigation on Uneven Terrain for Humanoid Robot (1) | Asia and the Pacific | no more than 26 years of age | B.Sc. or M.Sc. Very good background in Mathematics General knowledge in digital signal processing robotics, and/or computer vision, and/or machine learning. Preference will be for students with good knowledge in both: in computer science and mechatronics. Good programming skills in Matlab, Python and C++ are required. Good knowledge of V-REP robot simulator is required. |
| 24 | 3D Hand Pose Estimation. (1) | Latin America and the Caribbean | no more than 26 years of age | General knowledge in digital signal processing, and/or computer vision, and/or machine learning. Preference will be for students with good knowledge in electronics. Good programming skills in C++, Python, Matlab are required. |
| 25 | Geotourism (2) | Africa, Asia and the Pacific, Latin America and the Caribbean | no more than 30 years of age | B.Sc. or M.Sc. degree in geology, geography and/ or tourism. |
| 26 | Gas and Oil Engineering (7) Nodal analysis for unconventional tight gas reservoirs (2) | Africa, Asia and the Pacific, Latin America and the Caribbean | no more than 35 years of age | B.Sc. or M.Sc. degree in petroleum engineering, geoscience, gas engineering or mechanical engineering. |
| 27 | Optimization of the gas-condensate reservoir exploitation in the recovery of ethane and LPG (2) | | | |
| 28 | Reservoir fluid recombination in conventional and unconventional gas-condensate wells (2) | | | |
| 29 | Design of compressed air energy storages in salt caverns (1) | | | |
| 30 | Gas Engineering (2) Selected geological objects and their geotouristic values. | Africa, Asia and the Pacific, Latin America and the Caribbean | no more than 35 years of age | B.Sc. or M.Sc. degree in petroleum engineering, geoscience, gas engineering or mechanical engineering. |
| 31 | Ceramic and Material Engineering/material engineering education (2) Advanced Ceramic Materials. | Africa, Asia and the Pacific | no more than 40 years of age | B.Sc. or M.Sc. General knowledge in ceramic engineering. |
| | Total positions: 50 | | | |

Please refer to the list of invited Member States entitled to submit applications hereunder:

List of Invited Member States (122)

AFRICA

(46 Member States)

- Angola
- Benin
- Botswana
- Burkina Faso
- Burundi
- Cameroon
- Cape Verde
- Central African Republic
- Chad
- Comoros
- Congo
- Côte d'Ivoire
- Democratic Republic of the Congo
- Djibouti
- Equatorial Guinea
- Eritrea
- Ethiopia
- Gabon
- Gambia
- Ghana
- Guinea
- Guinea-Bissau
- Kenya
- Lesotho
- Liberia
- Madagascar
- Malawi
- Mali
- Mauritius
- Mozambique
- Namibia
- Niger
- Nigeria
- Rwanda
- Sao Tome and Principe
- Senegal
- Seychelles
- Sierra Leone
- Somalia
- South Africa
- Swaziland
- Togo
- Uganda
- United Republic of Tanzania
- Zambia
- Zimbabwe

ARAB STATES

(2 Member States)

- Iraq
- Syrian Arab Republic(the)

ASIA AND THE PACIFIC

(35 Member States)

- Afghanistan
- Bangladesh
- Bhutan
- Brunei Darussalam
- Cambodia
- China
- Fiji
- India
- Indonesia
- Kazakhstan
- Kiribati
- Kyrgyzstan
- Lao People's Democratic Republic
- Malaysia
- Maldives
- Mongolia
- Myanmar
- Nauru
- Nepal
- Niue
- Pakistan
- Palau
- Papua New Guinea
- Philippines
- Samoa
- Sri Lanka
- Tajikistan
- Thailand
- Timor-Leste
- Tonga
- Turkmenistan
- Tuvalu
- Uzbekistan
- Vanuatu
- Viet Nam

EUROPE

(8 Member States)

- Armenia,
- Azerbaijan,
- Bosnia and Herzegovina
- Croatia
- Georgia,
- Republic of Moldova
- Turkey
- Ukraine

LATIN AMERICA AND THE CARIBBEAN

(31 Member States)

- Argentina
- Barbados
- Belize
- Bolivia (Plurinational State of)
- Brazil
- Chile
- Colombia
- Costa Rica
- Cuba
- Dominica
- Dominican Republic
- Ecuador
- El Salvador
- Grenada
- Guatemala
- Guyana
- Haiti
- Honduras
- Jamaica
- Mexico
- Nicaragua
- Panama
- Paraguay
- Peru
- Saint Kitts and Nevis
- Saint Lucia
- Saint Vincent and the Grenadines
- Suriname
- Trinidad and Tobago
- Uruguay
- Venezuela (Bolivarian Republic of)

UNESCO/POLAND CO-SPONSORED FELLOWSHIPS PROGRAMME 2017

With a view to promoting human resource capacities in the developing countries and to enhancing international understanding and friendship among nations and the people of Poland, the Polish National Commission for UNESCO and the UNESCO Chair for Science, Technology and Engineering at the AGH University of Science and Technology in Krakow are placing at the disposal of UNESCO **forty (40)** fellowships of **six (6)** months duration starting on 2nd October 2017 for the benefit of Member States listed in Annex I. Beneficiaries of these fellowships will be given the opportunity to undertake an individual research programme in the field of **Science, Technology and Engineering**. For more information please visit also <http://www.unesco.agh.edu.pl/en/> .

Details regarding the fellowships offered and the criteria of selection are listed below. The Polish authorities will make the final decision.

A. QUALIFICATIONS REQUIRED

The required qualifications for each field of research (project) are as per the attached Annexes to this letter of announcement (see Annex I).

B. FACILITIES OFFERED BY THE POLISH AUTHORITIES

- (i) Free tuition and access to the university facilities based on the local regulations. Accommodation at the AGH UST Student Campus organised for fellows by the UNESCO AGH Chair.
- (ii) Monthly allowance of **1600 PLN** (1 USD = approximately 4,0 PLN) corresponding to the salary of a local junior research fellow. Thus, all living expenses and accommodation in Poland are to be borne by the fellow with this allowance; and;
- (iii) A one-time special allowance of **1600 PLN** to be paid upon arrival in Poland, this sum will cover different activities related to your stay in Krakow, such as an obligatory medical check-up upon arrival (in accordance with the internal regulations for all students); cultural, historical and/or touristic visits, conferences, workshops, and seminars related to your studies.

No provision to finance or lodge family members is made.

At the end of the research studies, the beneficiaries will receive a certificate attesting to their attendance at the host institution, this certificate will be given after receipt of the requested reports and financial clearance from the Institution.

C. FACILITIES OFFERED BY UNESCO

- (i) **International travel expenses:** (by the most direct, economical route) from the beneficiary's country to and from Poland will be covered by UNESCO under its Regular Programme Budget.
- (ii) **Health insurance for fellowship beneficiaries who are declared medically fit:** UNESCO fellowship holders may be covered by a health insurance policy, taken-out by the Organization for the duration of fellowship. The costs of this health insurance is subscribed to and covered by UNESCO on behalf of awarded fellows.

D. VISA

Fellows, from countries where Polish Embassies or Consulates exist, will have to obtain their entry visa to the country of study prior to their departure. Fellows, from countries where no such Embassy or Consulate exists, must secure their visa through the nearest Embassy of the Republic of Poland.

UNESCO and the Government of the Republic of Poland **provide no allowance** to defray passport and visa expenses. Selected beneficiaries will have **to secure their own visas themselves.**

E. SUBMISSION OF APPLICATION FILES

Candidatures should be submitted by the invited Member State. **Original applications in duplicate** must be channelled through the National Commission for UNESCO of the candidate's country and communicated to Mr Stoyan Bantchev, Chief, Participation programme and Fellowships Section, **by 14 April 2017 at the latest (GMT +01:00)** to UNESCO mailing address. An advance copy of the application should be sent by fax (33.1) 45.68.55.03 or by e-mail unesco3@agh.edu.pl; s.bantchev@unesco.org; b.qin@unesco.org and l.zas-friz@unesco.org. Applications should have **imperatively** the following attachments in **DUPLICATE**:

- (i) UNESCO fellowships application forms, including medical certificate, **ALL four (4) pages** duly completed **in English using capital letter** (illegible documents will be eliminated from the procedure, hand writing form must include capital letter only);
- (ii) Two photographs attached to the applications (4x6 cm);
- (iii) Certified copies (**in English**) of Bachelor's or Master's Degree/ PhD obtained; and,
- (iv) UNESCO certificate of language knowledge, duly completed by a relevant authority, if the mother tongue of the candidate is **not English**.
- (v) Two letters of recommendation from someone related to the candidate's work, as well confirming the candidate's qualifications.
- (vi) The endorsed candidates should register themselves to the Fellowship e-registration system available on the page: <http://www.unesco.agh.edu.pl/en/> .

Deadline 14 April 2017 at the latest

IMPORTANT

It is the National authority's responsibility to ensure that all candidates are duly informed of the above-mentioned conditions prior to the submission of applications.

Files which are incomplete or which are received after the deadline as well as candidatures that do not fulfil the requirements will not be taken into consideration.

Only the selected candidates will receive a letter through their respective National Commissions for UNESCO.

All application should be endorsed by the National Commission from the country of the candidate.

All correspondence should be in English.

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: unesco3@agh.edu.pl
 www.unesco.agh.edu.pl

Annex 01
List of projects proposal,
UNESCO/ Poland Co-sponsored Fellowship Programme in Engineering
edition 2017 A (AGH UST)

With a view to promoting human resource capacities in the developing countries and to enhancing international understanding and friendship among nations and the people of Poland, the Polish National Commission for UNESCO and the UNESCO Chair for Science, Technology and Engineering at the AGH University of Science and Technology in Krakow are placing at the disposal of UNESCO forty (40) fellowships in English language only of six (6) months duration starting on 1st October 2017 for the benefit of Member States listed in Annex 02 and Annex 03. Beneficiaries of these fellowships will be given the opportunity to undertake an individual research programme under supervision of tutor in the field of the Science, Technology and Engineering.

ID 2017A 01 AGH PL. Decision Engineering (Field of research). Problem base engineering (Project title). Academic requirements: Candidates should have a B.Sc. or M.Sc. degree. Qualifications required: 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 use MS Office and drawing programs, have a general knowledge related to engineering problems. Project duration: 6 months. Proposed starting date: 01.10.2017. Language: English. UNESCO Member States (Asia and the Pacific, Africa, Latin America and the Caribbean). Number of fellowships with free tuition sponsored by UNESCO (max): 2.

ID 2017A 02 AGH PL. Automation in Mining Devices (Field of research). Mining devices automation (Project title). Academic requirements: Candidates should have a B.Sc. or M.Sc. degree, automation in mining devices. Qualifications required: 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. Project duration: 6 months. Proposed starting date: 01.10.2017. Language: English. UNESCO Member States (Asia and the Pacific, Africa, Latin America and the Caribbean). Number of fellowships with free tuition sponsored by UNESCO (max): 4.

ID 2017A 03 AGH PL. Mining Devices (Field of research). Selected problems in operation of mining devices (Project title). Academic requirements: Candidates should have a B.Sc. or M.Sc. in engineering; Mining Devices. Qualifications required: 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. Project duration: 6 months. Proposed starting date: 01.10.2017. Language: English. UNESCO Member States (Asia and the Pacific, Africa, Latin America and the Caribbean). Number of fellowships with free tuition sponsored by UNESCO (max): 4.

ID 2017A 04 AGH PL. Transport Engineering (Field of research). Availability problems in transportation systems and devices (Project title). Academic requirements: Candidates should have a B.Sc. or M.Sc.. Qualifications required: 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 or be familiar with CAD/ CAM/ CAE programs, have a general knowledge related to transportation problems, including safety and reliability problems, mechatronics. Project duration: 6 months. Proposed starting date: 01.10.2017. Language: English. UNESCO Member States (Asia and the



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
**List of projects proposal, UNESCO/ Poland Co-sponsored Fellowship Programme in
Engineering, edition 2017 A**

Pacific, Africa, Latin America and the Caribbean). Number of fellowships with free tuition sponsored by UNESCO (max): 2.

ID 2017A 05 AGH PL. Transport Engineering (Field of research). Transport System Telematics (Project title). Academic requirements: Candidates should have a B.Sc. or M.Sc.; Candidates should have mechanical/ transport engineering/ automation degree. Qualifications required: be proficient in reading and writing in English; be familiar with transport system telematics, be able to analysis of reliability, maintainability and availability of machine maintenance, as well Modeling; be not more than 40 years of age; and be in good health, both physically and mentally. Project duration: 6 months. Proposed starting date: 01.10.2017. Language: English. UNESCO Member States (Asia and the Pacific, Africa, Latin America and the Caribbean). Number of fellowships with free tuition sponsored by UNESCO (max): 2.

ID 2017A 06 AGH PL. Manufacturing Transport Engineering (Field of research). Transportation technology system and devices (Project title). Academic requirements: Candidates should have a B.Sc. or M.Sc.; Qualifications required: 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 or be familiar with CAD/ CAM/ CAE programs, have a general knowledge related to transportation problems, including safety and reliability problems. Project duration: 6 months. Proposed starting date: 01.10.2017. Language: English. UNESCO Member States (Asia and the Pacific, Africa, Latin America and the Caribbean). Number of fellowships with free tuition sponsored by UNESCO (max): 2.

ID 2017A 07 AGH PL. Drilling Engineering (Field of research). Drilling and Hydraulic Fracturing (Project title). Academic requirements: Candidates should have a B.Sc. or M.Sc. Preferably in petroleum, earth engineering, physics, mathematics or computer sciences. Qualifications required: 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 solve problems using mathematical methods. Project duration: 6 months. Proposed starting date: 01.10.2017. Language: English. UNESCO Member States (Asia and the Pacific, Africa, Latin America and the Caribbean). Number of fellowships with free tuition sponsored by UNESCO (max): 2.

ID 2017A 08 AGH PL. Sociology/ Economic Sociology and Economics (Field of research). Interrelations between new technologies and social and economic life in globalizing world (Project title). Academic requirements: Candidates should have a B.Sc. or M.Sc, MA degree in humanities or social sciences or economics. Qualifications required: be proficient in reading and writing in English; be not more than 35 years of age; and be in good health, both physically and mentally; general knowledge in world economics. Project duration: 6 months. Proposed starting date: 01.10.2017. Language: English. UNESCO Member States (Asia and the Pacific, Africa, Latin America and the Caribbean). Number of fellowships with free tuition sponsored by UNESCO (max): 1.

ID 2017A 09 AGH PL. Sociology/ Humanities, Political Sciences; Sociology (Field of research). Social and Political Dimensions of the Cyberspace (Project title). Academic requirements: Candidates should have a B.Sc. or M.Sc. degree. Qualifications required: 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; general knowledge in Internet; Social Media. Project duration: 6 months. Proposed starting date: 01.10.2017. Language: English. UNESCO Member States (Asia and the Pacific, Africa, Latin America and the Caribbean). Number of fellowships with free tuition sponsored by UNESCO (max): 1.

ID 2017A 10 AGH PL. Foundry Engineering/ Polymers in foundry engineering, aluminosilicate in green sands system, moulding and green sands (Field of research). Analysis of selected properties of the polysaccharide – aluminosilicate binder in sand grains (Project title). Academic requirements: Candidates should have a B.Sc. or M.Sc. degree in foundry or metallurgical engineering, materials engineering. Qualifications required: be proficient in reading and writing in English and Polish; candidate was previously a scholarship in another program, be not more than 25 years of age; and be in good health, both physically and mentally; general knowledge in chemistry of polymers and aluminosilicate, materials



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UNESCO CHAIR FOR SCIENCE, TECHNOLOGY AND ENGINEERING EDUCATION AT THE AGH
UNIVERSITY OF SCIENCE AND TECHNOLOGY KRAKOW, POLAND
**List of projects proposal, UNESCO/ Poland Co-sponsored Fellowship Programme in
Engineering, edition 2017 A**

engineering, foundry engineering. Project duration: 6 months. Proposed starting date: 01.10.2017. Language: English. UNESCO Member States (Asia and the Pacific, Latin America and the Caribbean). Number of fellowships with free tuition sponsored by UNESCO (max): 1.

ID 2017A 11 AGH PL. Foundry Engineering / Continuous casting of steel, solidification, modeling of generation process of non-metallic inclusion (Field of research). Modeling of the generation process of non-metallic inclusion in CCS (Project title). Academic requirements: Candidates should have a B.Sc. or M.Sc. degree, studies in computer science, specialty programming. Qualifications required: be proficient in reading and writing in English or Polish; be not more than 30 years of age; and be in good health, both physically and mentally; general knowledge in programming for and automated systems. Programming languages: Delphi, HTML; Programming tools: Microsoft Visual C++/C. Project duration: 6 months. Proposed starting date: 01.10.2017. Language: English. UNESCO Member States (Asia and the Pacific, Latin America and the Caribbean). Number of fellowships with free tuition sponsored by UNESCO (max): 2.

ID 2017A 12 AGH PL. Programming Languages/ Delphi, HTML; Programming tools: Microsoft Visual C++, metallurgy, steelmaking process (Field of research). Modeling of the removal of non-metallic inclusions to slag (Project title). Academic requirements: Candidates should have a B.Sc. or M.Sc. degree, studies in computer science, specialty programming. Qualifications required: be proficient in reading and writing in English or Polish; be not more than 32 years of age; and be in good health, both physically and mentally; general knowledge in programming for and automated systems. Programming languages: Delphi, HTML; Programming tools: Microsoft Visual C++. Project duration: 6 months. Proposed starting date: 01.10.2017. Language: English. UNESCO Member States (Asia and the Pacific, Latin America and the Caribbean). Number of fellowships with free tuition sponsored by UNESCO (max): 2.

ID 2017A 13 AGH PL. Ceramics Composites/ Ceramics matrix Composites (Field of research). Refractory Metal Silicides for Ceramic-Ceramic Joining (Project title). Academic requirements: Candidates should have a B.Sc. or M.Sc. degree. Qualifications required: general knowledge in material science and/or physics. Project duration: 6 months. Proposed starting date: 01.10.2017. Language: English. UNESCO Member States (Asia and the Pacific). Number of fellowships with free tuition sponsored by UNESCO (max): 1.

ID 2017A 14 AGH PL. Geology/ Mineralogy, Geochemistry (Field of research). Tungsten deposit in Rwanda (Project title). Academic requirements: Candidates should have a B.Sc. or M.Sc. degree. Qualifications required: 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; general knowledge in geology, mineralogy, geochemistry, mineral deposit. Project duration: 6 months. Proposed starting date: 01.10.2017. Language: English. UNESCO Member States (Africa). Number of fellowships with free tuition sponsored by UNESCO (max): 1.

ID 2017A 15 AGH PL. Geology/ Mineralogy, Geochemistry (Field of research). Stratiform copper deposit in Iran (Project title). Academic requirements: Candidates should have a B.Sc. or M.Sc. degree. Qualifications required: be proficient in reading and writing in English; be not more than 35 years of age; and be in good health, both physically and mentally; general knowledge in geology, mineralogy, geochemistry, mineral deposit. Project duration: 6 months. Proposed starting date: 01.10.2017. Language: English. UNESCO Member States (Asia and the Pacific). Number of fellowships with free tuition sponsored by UNESCO (max): 1.

ID 2017A 16 AGH PL. Geology (Field of research). Epithermal base to precious metal mineralization in the Iranian Orogenic Belts (Project title). Academic requirements: Candidates should have a B.Sc. or M.Sc. degree. Qualifications required: be proficient in reading and writing in English; general knowledge of Iranian Geology and ore deposits; be familiar with EMPA and EDX analyses; student of economic geology; general knowledge on volcanic connected ore deposits; available to read and speak Farsi; Own samples for studying are REQUIRED. Project duration: 6 months. Proposed starting date: 01.10.2017.



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ID 2017A 17 AGH PL. Geology (Field of research). Pb-Zn deposit in Iran: Geological, Mineralogy and Geochemical characteristics (Project title). Academic requirements: Candidates should have a B.Sc. or M.Sc. degree. Qualifications required: be proficient in reading and writing in English; general knowledge of Iranian Geology and deposits; be familiar with EMPA and EDX analyses; student of economic geology; available to read and speak Farsi; Own samples for studying are REQUIRED. Project duration: 6 months. Proposed starting date: 01.10.2017. Language: English. UNESCO Member States (Asia and the Pacific). Number of fellowships with free tuition sponsored by UNESCO (max): 1.

ID 2017A 18 AGH PL. Geology (Field of research). Genetic type of nickel deposits in Iran.: Mineralogical and geochemical diversity (Project title). Academic requirements: Candidates should have a B.Sc. or M.Sc. degree. Qualifications required: be proficient in reading and writing in English; general knowledge of Iranian Geology and deposits; be familiar with EMPA and EDX analyses; student of economic geology; available to read and speak Farsi; Own samples for studying are REQUIRED. Project duration: 6 months. Proposed starting date: 01.10.2017. Language: English. UNESCO Member States (Asia and the Pacific, Arab States). Number of fellowships with free tuition sponsored by UNESCO (max): 1.

ID 2017A 19 AGH PL. Geology/ Mineralogy, Geochemistry (Field of research). REE deposit in Wiet-Nam (Project title). Academic requirements: Candidates should have a B.Sc. or M.Sc. degree. Qualifications required: be proficient in reading and writing in English; be not more than 35 years of age; and be in good health, both physically and mentally; general knowledge in geology, mineralogy, geochemistry, mineral deposit. Project duration: 6 months. Proposed starting date: 01.10.2017. Language: English. UNESCO Member States (Asia and the Pacific). Number of fellowships with free tuition sponsored by UNESCO (max): 1.

ID 2017A 20 AGH PL. Geology/ Mineralogy, Geochemistry (Field of research). Tin deposit in Central Africa (Project title). Academic requirements: Candidates should have a B.Sc. or M.Sc. degree. Qualifications required: be proficient in reading and writing in English; be not more than 35 years of age; and be in good health, both physically and mentally; general knowledge in geology, mineralogy, geochemistry, mineral deposit. Project duration: 6 months. Proposed starting date: 01.10.2017. Language: English. UNESCO Member States (Africa). Number of fellowships with free tuition sponsored by UNESCO (max): 1.

ID 2017A 21 AGH PL. Geology/ Mineralogy, Geochemistry (Field of research). Chromite deposit in Wiet-Nam (Project title). Academic requirements: Candidates should have a B.Sc. or M.Sc. degree. Qualifications required: be proficient in reading and writing in English; be not more than 35 years of age; and be in good health, both physically and mentally; general knowledge in geology, mineralogy, geochemistry, mineral deposit. Project duration: 6 months. Proposed starting date: 01.10.2017. Language: English. UNESCO Member States (Asia and the Pacific). Number of fellowships with free tuition sponsored by UNESCO (max): 1.

ID 2017A 22 AGH PL. Geology/ Mineralogy, Geochemistry (Field of research). Pb-Zn deposit in Wiet-Nam (Project title). Academic requirements: Candidates should have a B.Sc. or M.Sc. degree. Qualifications required: 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; general knowledge in geology, mineralogy, geochemistry, mineral deposit. Project duration: 6 months. Proposed starting date: 01.10.2017. Language: English. UNESCO Member States (Asia and the Pacific). Number of fellowships with free tuition sponsored by UNESCO (max): 1.

ID 2017A 23 AGH PL. Computer Vision (Field of research). Online Footstep Planning and Navigation on Uneven Terrain for a Humanoid Robot (Project title). Academic requirements: Candidates should have a B.Sc. or M.Sc. degree, and very good background in mathematics. Qualifications required: be proficient



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in reading and writing in English; be not more than 26 years of age; and be in good health, both physically and mentally; the student should have general knowledge in digital signal processing robotics, and/ or computer vision, and/ or machine learning. Preference will be for students with good knowledge in both in computer science and mechatronics. Good programming skills in Matlab, Python and C++ are required. Good knowledge of V-REP robot simulator is required. Project duration: 6 months. Proposed starting date: 01.10.2017. Language: English. UNESCO Member States (Asia and the Pacific). Number of fellowships with free tuition sponsored by UNESCO (max): 1.

ID 2017A 24 AGH PL. Computer Vision (Field of research). 3D Hand Pose Estimation (Project title). Academic requirements: Candidates should have a B.Sc. or M.Sc. degree, and strong background in mathematics. Qualifications required: be proficient in reading and writing in English; be not more than 26 years of age; and be in good health, both physically and mentally; the student should have general knowledge in digital signal processing and/ or computer vision, and/ or machine learning. Preference will be for students with good knowledge in electronics. Good programming skills in C++, Python, Matlab are required. Project duration: 6 months. Proposed starting date: 01.10.2017. Language: English. UNESCO Member States (Latin America and the Caribbean). Number of fellowships with free tuition sponsored by UNESCO (max): 1.

ID 2017A 25 AGH PL. Geotourism (Field of research). Valorization of selected geological objects for geotourism purposes (Project title). Academic requirements: Candidates should have a B.Sc. or M.Sc. degree in geology, geography and/ or tourism. Qualifications required: be proficient in reading and writing in English; and be in good health, both physically and mentally. Project duration: 6 months. Proposed starting date: 01.10.2017. Language: English. UNESCO Member States (Asia and the Pacific, Africa, Latin America and the Caribbean). Number of fellowships with free tuition sponsored by UNESCO (max): 2.

ID 2017A 26 AGH PL. Gas and Oil Engineering (Field of research). Nodal analysis for unconventional light gas reservoirs (Project title). Academic requirements: Candidates should have a B.Sc. or M.Sc. degree in petroleum engineering, geoscience, gas engineering or mechanical engineering. Qualifications required: be proficient in reading and writing in English; be not more than 35 years of age and be in good health, both physically and mentally. Project duration: 6 months. Proposed starting date: 01.10.2017. Language: English. UNESCO Member States (Asia and the Pacific, Africa, Latin America and the Caribbean). Number of fellowships with free tuition sponsored by UNESCO (max): 2.

ID 2017A 27 AGH PL. Gas and Oil Engineering (Field of research). Optimization of the gas-condensate reservoir exploitation in the recovery of ethane and LPG (Project title). Academic requirements: Candidates should have a B.Sc. or M.Sc. degree in petroleum engineering, geoscience, gas engineering or mechanical engineering. Qualifications required: be proficient in reading and writing in English; be not more than 35 years of age and be in good health, both physically and mentally. Project duration: 6 months. Proposed starting date: 01.10.2017. Language: English. UNESCO Member States (Asia and the Pacific, Africa, Latin America and the Caribbean). Number of fellowships with free tuition sponsored by UNESCO (max): 2.

ID 2017A 28 AGH PL. Gas and Oil Engineering (Field of research). Reservoir fluid recombination in conventional and unconventional gas-condensate wells (Project title). Academic requirements: Candidates should have a B.Sc. or M.Sc. degree in petroleum engineering, geoscience, gas engineering or mechanical engineering. Qualifications required: be proficient in reading and writing in English; be not more than 35 years of age and be in good health, both physically and mentally. Project duration: 6 months. Proposed starting date: 01.10.2017. Language: English. UNESCO Member States (Asia and the Pacific, Africa, Latin America and the Caribbean). Number of fellowships with free tuition sponsored by UNESCO (max): 2.

ID 2017A 29 AGH PL. Gas and oil engineering (Field of research). Design of compressed air energy storages in salt caverns (Project title). Academic requirements: Candidates should have a B.Sc. or M.Sc. degree in petroleum engineering, geoscience, gas engineering or mechanical engineering. Qualifications



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required: be proficient in reading and writing in English; be not more than 35 years of age and be in good health, both physically and mentally. Project duration: 6 months. Proposed starting date: 01.10.2017. Language: English. UNESCO Member States (Asia and the Pacific, Africa, Latin America and the Caribbean). Number of fellowships with free tuition sponsored by UNESCO (max): 1.

ID 2017A 30 AGH PL. Gas Engineering (Field of research). Enhanced Gas Recovery (EGR) technology with CO₂ sequestration in gas fields (Project title). Academic requirements: Candidates should have a B.Sc. or M.Sc. degree in petroleum engineering, geoscience, gas engineering or mechanical engineering. Qualifications required: be proficient in reading and writing in English; be not more than 35 years of age and be in good health, both physically and mentally. Project duration: 6 months. Proposed starting date: 01.10.2017. Language: English. UNESCO Member States (Asia and the Pacific, Africa, Latin America and the Caribbean). Number of fellowships with free tuition sponsored by UNESCO (max): 2.

ID 2017A 31 AGH PL. Ceramic and Material Engineering/ material engineering education (Field of research). Advanced Ceramic Materials (Project title). Academic requirements: Candidates should have a B.Sc. or M.Sc. Qualifications required: 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, general knowledge in ceramic engineering. Project duration: 6 months. Proposed starting date: 01.10.2017. Language: English. UNESCO Member States (Asia and the Pacific, Africa). Number of fellowships with free tuition sponsored by UNESCO (max): 2.

Please refer to the list of invited Member States entitled to submit applications hereunder.

