



United Nations
Educational, Scientific and
Cultural Organization

Organisation
des Nations Unies
pour l'éducation,
la science et la culture

Organización
de las Naciones Unidas
para la Educación,
la Ciencia y la Cultura

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

Le Sous-Directeur général pour les Relations extérieures et l'Information du public



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



Aux: Commissions nationales pour l'UNESCO
des Etats membres invités (cf. Annexe I)

Réf. : ERI/MSP/PPF/LZF/16.004

25 février 2016

Objet : Programme de bourses coparrainées UNESCO/Pologne en Ingénierie
Cycle 2016

Madame/Monsieur,

J'ai le plaisir de vous informer que dans le cadre du Programme de bourses coparrainées UNESCO/Pologne, cycle 2016, en Ingénierie, la Commission nationale polonaise pour l'UNESCO et la Chaire UNESCO pour la Science, la Technologie et l'Enseignement de l'Ingénierie à AGH, l'Université des Sciences et des Technologies (Cracovie), offrent **rente-cinq (35)** bourses de recherche d'une durée de **six (6)** mois à partir du 1^{er} octobre 2016, en Pologne, au profit de certains Etats membres (cf. Annexe I). Les bénéficiaires de ces bourses auront l'opportunité d'entreprendre un programme de recherche dans le domaine **des sciences, des technologies et de l'ingénierie**.

Les annexes ci-jointes indiquent des renseignements précis sur les domaines d'étude, les qualifications requises, les services offerts, les règles et conditions d'attribution de ces bourses et la procédure à suivre pour la soumission des dossiers de candidature.

Ce programme est offert par voie de concours et seuls les candidats réunissant les qualifications nécessaires et répondant aux critères stipulés dans les annexes, auront la chance d'être sélectionnés. Les candidatures doivent être adressées par courrier à M. Stoyan Bantchev, Chef de la Section du Programme de participation et des bourses de l'UNESCO (7, place Fontenoy – 75352 Paris 07, France) en respectant la **date limite du 30 avril 2016**.

Une copie scannée devra être envoyée par courriel : (s.bantchev@unesco.org; l.zas-friz@unesco.org et b.qin@unesco.org).

Veuillez agréer, Madame/Monsieur, l'expression de mes sentiments distingués.


Eric Falt

Pièce jointes:

- Annexe I (Etats Membres invités et qualifications requises par domaine d'études disponible seulement en anglais)
- Annexe II (Critères et conditions)
- Annexe III (Descriptif des 53 cours proposés. Disponible seulement en anglais)
- Formulaire UNESCO de demande de bourse (seulement en anglais)
- Certificat de connaissance linguistique (seulement en anglais)

UNESCO/POLAND CO-SPONSORED FELLOWSHIPS PROGRAMME 2016

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	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 engineering preferably in petroleum, earth engineering, physics, mathematics or computer sciences.
02	Geophysics or Physics (1) <i>Study of radionuclides and rare elements deposits</i>	Africa, Asia and the Pacific	no more than 35 years of age	B.Sc degree Principle knowledge about rare and radioactive deposits and preferable for candidates with solid and water samples collected from deposits in his country.
03	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 Be able to use MS Office and drawing programs; a general knowledge related to engineering problems.
04	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 automation, mining devices
05	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 engineering, mining devices.
06	Transport Engineering (4) <i>Availability problems in transportation systems and devices</i> (2)	Africa, Asia and the Pacific, Latin America and the Caribbean	no more than 40 years of age	B.Sc or M.Sc degree (06) 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. (07) 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.
07	<i>Transport System Telematics</i> (2)			
08	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 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.
09	Sensor Engineering (1) <i>Inter-digital Piezoelectric transducers in Structural Health monitoring.</i>	Africa, Asia and the Pacific, Latin America and the Caribbean	no more than 30 years of age	B.Sc or M.Sc degree Experienced in the field of Piezoelectric transducers and general knowledge in ultrasound, sensor engineering, signal processing.
10	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 General knowledge in world economics
11	Foundry Engineering (1) <i>Ecological assessment of the polymer binder in the form: copolymer of maleinic acid/modified polysaccharide.</i>	Europe, Latin America and the Caribbean	no more than 25 years of age	B.Sc degree General knowledge in chemistry of polymers engineering, environmental harmful substances.

Project No.	FIELD OF RESEARCH/PROJECT TITLE (number of fellowships)	INVITED MEMBER STATES PER REGION	LIMIT OF AGE	ACADEMIC REQUIREMENT
12	Foundry Engineering (3) Influence of cerium on the morphology of non-metallic inclusion in microralloyed steel (1)	Asia and the Pacific and Europe	no more than 40 years of age	B.Sc or M.Sc degree General knowledge in steel metallurgy materials engineering, physics and mathematics.
13	Evolution of chemical composition of non-metallic precipitates generated in the process of the de-oxidization and modification of lanthanum steel (1).			
14	Influence of the neodymium on the morphology of non-metallic inclusion in steel (1).			
15	Geology (6) Geological characteristic of tin deposit in Africa. (4)	Africa, Asia and the Pacific	no more than 30 years of age	B.Sc or M.Sc degree Basic knowledge on mineral deposits and general knowledge in geology and optical mineralogy.
29	Geological characteristic of chromite deposit in Balkan. (1)	Africa, Asia and the Pacific and Europe	same as above	Basic knowledge on mineral deposits. General knowledge in geology is required; and optical mineralogy is welcome.
30	Geological characteristic of metallic deposit in Balkan. (1)	Africa, Asia and the Pacific and Europe	no more than 35 years of age	Basic knowledge on mineral deposits; general knowledge in geology is required; knowledge in optical mineralogy is welcome.
16	Computer Vision (2) Research in computer vision and cognitive robotics.	Asia and the Pacific	no more than 25 years of age	B.Sc or M.Sc degree Very good background in mathematics, interest in computer science, particularly in computer vision and robotics. General knowledge of programming C/C++, Matlab or Python; basic knowledge of image processing and analysis technics. Strong background in mathematics particularly in linear algebra.
17	Materials Science (6) Advanced ceramic materials-synthesis, properties and possible application (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 materials science or chemistry. General knowledge in materials science, (especially in ceramic technology of porous materials). Be able to work in a group, good communication skills, be highly motivated, innovative with some experimental and process development skills and an open-minded approach to new ideas and concepts.
18	Granular metals-fabrication characterization and modelling. (2)			
19	Electrochemically Engineered Materials– synthesis, properties and possible application. (2)			
20	Nanotechnology (1) MOS2 based thin films for solar energy conversion.	Africa, Asia and the Pacific, Latin America and the Caribbean	no more than 30 years of age	B.Sc or M.Sc degree in Physics, chemistry or material engineering. General knowledge in thin films, solid states physics and chemistry, methods of thin films elaboration; scientific approach to the problem; be able to work in group and good communications skills.

Project No.	FIELD OF RESEARCH/PROJECT TITLE (number of fellowships)	INVITED MEMBER STATES PER REGION	LIMIT OF AGE	ACADEMIC REQUIREMENT
21	Composite Materials (1) Local in situ composite reinforcements in ferrous casting for abrasive wear resistance enhancement	Africa, Asia and the Pacific, Latin America and the Caribbean	no more than 40 years of age	B.Sc or M.Sc degree in Materials Science/Materials Engineering/Metallurgy or similar subjects. General knowledge in materials investigation techniques (e.g. x-ray diffraction, electron microscopy)
22	Computer Vision (2) Embedded implementation of selected vision algorithms using heterogeneous Zynq SoC (System on Chip) devices	Africa, Asia and the Pacific, Latin America and the Caribbean	no more than 30 years of age	B.Sc or M.Sc degree Candidates should have background in : computer science (mainly programming in C/C++/Python/Matlab/Open CV and general algorithms); basic skills in computer vision, embedded systems 5ARM processor programming and Linux OS) and FPGA devices (e.g. VHDL or Verilog, Xilinx FPGA devices, Xilinx Zynq devices, Xilinx tools like ISE, Vivado, SDK). Only the Computer Science is mandatory, however others will greatly help finishing the project (no additional time for studying this subjects will be required).
23	Geology and Mining (1) Analysis of use geothermal waters for energetical purposes	Africa, Asia and the Pacific, Latin America and the Caribbean	no more than 40 years of age	B.Sc or M.Sc degree Engineering background in one of the following fields: mining and geology, heat transfer, civil engineering.
24 25 27 28	Gas Engineering (8) Design of compressed air energy storages in salt caverns (2) Reservoir fluid recombination in conventional and unconventional gas-condensate wells (2) Optimization of the gas-condensate reservoir exploitation in the recovery of ethane and LPG (2) 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.
26	Geotourism (2) Selected geological objects and their geotouristic values.	Africa, Asia and the Pacific, Latin America and the Caribbean	no more than 40 years of age	B.Sc or M.Sc degree in geology geophysics and environmental protection.
	Total positions: 53			

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

List of Invited Member States (121)

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.

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

(9 Member States)

- Armenia,
- Azerbaijan,
- Bosnia and Herzegovina,
- Croatia,
- Georgia,
- Republic of Moldova,
- The former Yugoslav Republic of Macedonia,
- 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)

PROGRAMME DE BOURSES COPARRAINÉES UNESCO/POLOGNE 2016

Afin de promouvoir les compétences des ressources humaines des pays en développement, et de favoriser la compréhension et l'amitié entre les nations et le peuple polonais, la Commission nationale polonaise pour l'UNESCO et AGH, l'Université des Sciences et des Technologies (Cracovie), Chaire UNESCO pour la Science, la Technologie et l'Enseignement de l'Ingénierie à AGH, mettent à la disposition de l'UNESCO **trente-cinq (35)** bourses de recherche de **six(6)** mois chacune qui débiteront le 1^{er} octobre 2016. Ces bourses s'adressent aux ressortissants des Etats membres répertoriés en Annexe I. Les bénéficiaires de cette bourse auront l'opportunité d'entreprendre un programme de recherche dans le domaine des **sciences, des technologies et de l'ingénierie**. Pour plus d'informations, veuillez visiter la page web : <http://www.unesco.agh.edu.pl/en/> . Les critères et conditions de ces bourses sont indiqués ci-dessous. La sélection des bénéficiaires revient aux autorités polonaises.

A. DOMAINE DE RECHERCHE

Les domaines de recherche sont indiqués ci-dessous (cf. Annexe III, disponible seulement en anglais).

B. QUALIFICATIONS REQUISES

Les qualifications requises pour chaque domaine de recherche (projet) sont indiquées dans l'annexe I (disponible seulement en anglais)

C. MOYENS OFFERTS PAR LES AUTORITES POLONAISES

- (i) Frais de scolarité gratuits ;
- (ii) Allocation mensuelle de **1350 PLN** (1 \$EU = 3.9 PNL approximativement) pour permettre au boursier de régler entièrement toutes les dépenses liées à son séjour en Pologne (cette allocation correspond au salaire local d'un jeune chercheur) ; et,
- (iii) Une allocation spéciale de **1350 PLN**, versée à l'arrivée en Pologne, cette somme est destinée pour régler certaines activités, telles que l'examen médical (obligatoire selon le règlement intérieur des étudiants), activités culturelles, historiques et/ou touristiques, conférences, ateliers et séminaires relatifs aux programmes d'études.

Aucune allocation n'est prévue pour les membres de la famille du boursier.

A la fin de la bourse, dès réception des rapports demandés par le superviseur d'études et du paiement de toutes les factures relatifs aux études, l'Université ou l'établissement d'accueil délivrera aux boursiers un certificat attestant leurs études ou travaux de recherche.

D. MOYENS OFFERTS PAR L'UNESCO

- (i) **Billet aller-retour à destination de la Pologne** (au tarif le plus économique) à la charge de l'UNESCO au titre de son Programme ordinaire ; et
- (ii) **Couverture médicale** : L'UNESCO souscrit une police d'assurance pour ses boursiers sélectionnés, pendant la durée de la bourse et règle directement les frais d'affiliation à l'assureur du système des Nations Unies, sous réserve d'une approbation médicale délivrée par le Service médical de l'UNESCO.

E. VISA

Les candidats sélectionnés devront obtenir, avant leur départ, un visa auprès de l'Ambassade/Consulat de Pologne de leur pays de résidence ou, le cas échéant, auprès de l'Ambassade/Consulat d'un pays voisin.

L'UNESCO et le gouvernement de la République de Pologne **ne prennent pas en charge** les frais de visa ou de délivrance de passeport et les démarches en vue de l'obtention du visa **incombent au seul boursier**.

F. SOUMISSION DES DOSSIERS DE CANDIDATURE

Les candidatures doivent être soumises par l'Etat membre invité. Comme à l'accoutumée, les Commissions nationales des Etats membres invités soumettront à l'adresse postale de l'UNESCO, les **dossiers originaux** des candidats **en double exemplaire** à M. Stoyan Bantchev, Chef, Section du Programme de participation et des bourses le 30 avril 2016 au plus tard. Une copie doit être envoyée par fax N° (33.1) 45.68.55.03 ou par courriel : s.bantchev@unesco.org, l.zas-friz@unesco.org, b.qin@unesco.org. Les dossiers devront **IMPERATIVEMENT** comprendre les documents suivants en **DOUBLE EXEMPLAIRE** :

- (i) Deux (2) formulaires UNESCO de demande de bourse (**4 pages**) dûment **complétés en anglais** ;
- (ii) Deux photographies épinglées aux formulaires (4x6 cm);
- (iii) Deux copies certifiées conformes (**en anglais**) de la Licence ou de la Maîtrise obtenues ; et,
- (iv) Deux formulaires de l'UNESCO de connaissances linguistiques de la langue anglaise dûment complétés et attestés par un professeur ou un établissement d'accueil (pour les candidats non anglophones).
- (v) Deux lettres de recommandation confirmant les qualifications du candidat.
- (vi) Les candidats endossés par leurs Commissions nationales doivent s'inscrire eux-mêmes dans la page : <http://www.unesco.agh.edu.pl/en/>

30 avril 2016 au plus tard : date limite de dépôt des candidatures

IMPORTANT

Avant toute soumission, il incombe aux autorités de s'assurer que le candidat a été instruit des conditions susmentionnées.

Les dossiers incomplets ou reçus après la date indiquée ci-dessus, de même que les candidatures ne correspondant pas aux critères requis, ne seront pas pris en considération.

Seuls, les candidats sélectionnés recevront une lettre les en informant, par l'intermédiaire de leur Commission nationale respective.

Toute candidature doit être endossée par la Commission nationale du pays d'origine du candidat.

Toute correspondance doit être en anglais

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
 www.unesco.agh.edu.pl

Annex 01
List of projects proposal,
UNESCO/ Poland Co-sponsored Fellowship Programme in Engineering
edition 2016 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 thirty five (35) fellowships in English language only of six (6) months duration starting on 1st October 2016 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 2016A 01 AGH PL. Drilling Engineering (Field of research). Drilling and Hydraulic Fracturing (Project title). Academic requirements: Candidates should have a B. Sc. or M.Sc. degree, preferably in petroleum, earth engineering, physics, mathematics or computer science. 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: 01.10.2016. Language: English. UNESCO Member States (Asia, Africa, Latin America); Number of fellowships with free tuition sponsored by UNESCO: 2.

ID 2016A 02 AGH PL. Geophysics or Physics (Field of research). Study of radionuclides and rare elements deposits (Project title). Academic requirements: Candidates should have a B.Sc. degree, good English and principle knowledge about rare and radioactive deposits, prefer for candidate with solid and water samples collected from deposits in his country. 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 geochemistry, nuclear geology and physics. Project duration: 6 months. Proposed starting date: 01.10.2016. Language: English. UNESCO Member States (Asia and Africa); Number of fellowships with free tuition sponsored by UNESCO: 1

ID 2016A 03 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: 01.10.2016. Language: English. UNESCO Member States (Asia, Africa, Latin America); Number of fellowships with free tuition sponsored by UNESCO: 2.

ID 2016A 04 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: 01.10.2016. Language: English. UNESCO Member States (Asia, Africa, Latin America); Number of fellowships with free tuition sponsored by UNESCO: 4.



ID 2016A 05 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: 01.10.2016. Language: English. UNESCO Member States (Asia, Africa, Latin America); Number of fellowships with free tuition sponsored by UNESCO: 4.

ID 2016A 06 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. Project duration: 6 months. Proposed starting date: 01.10.2016. Language: English. UNESCO Member States (Asia, Africa, Latin America); Number of fellowships with free tuition sponsored by UNESCO: 2.

ID 2016A 07 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: 01.10.2016. Language: English. UNESCO Member States (Asia, Africa, Latin America); Number of fellowships with free tuition sponsored by UNESCO: 2.

ID 2016A 08 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: 01.10.2016. Language: English. UNESCO Member States (Asia, Africa, Latin America); Number of fellowships with free tuition sponsored by UNESCO: 2

ID 2016A 09 AGH PL. Sensor Engineering (Field of research). Inter-digital Piezoelectric transducers in Structural Health Monitoring (Project title). Academic requirements: Candidates should have a B.Sc. or M.Sc. degree; the candidate should have both a B.Sc. an M.Sc. degree. Qualifications required: be proficient in reading and writing in English; be not more than 30 years of age; and be in good health, both physically and mentally; experience in the field of piezoelectric transducers. General knowledge in ultrasound, sensor engineering, signal processing. Project duration: 6 months. Proposed starting date: 01.10.2016. Language: English. UNESCO Member States (Asia, Africa, Latin America); Number of fellowships with free tuition sponsored by UNESCO: 1.

ID 2016A 10 AGH PL. 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. 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: 01.10.2016. Language: English. UNESCO Member States (Asia, Africa, Latin America); Number of fellowships with free tuition sponsored by UNESCO: 1.

ID 2016A 11 AGH PL. Foundry Engineering (Field of research). Ecological assessment of the polymer binder in the form: copolymer of maleic acid/ modified polysaccharide (Project title). Academic requirements: Candidates should have a B.Sc. degree. Qualifications required: be proficient in reading and writing in English; candidate was previously a scholarship in another program, be not more than 25 years of age; be in good health, both physically and mentally; general knowledge in chemistry of polymers engineering, environmental foundry engineering, harmful substances. Project duration: 6



months. Proposed starting date: 01.10.2016. Language: English. UNESCO Member States (Europe, Latin America); Number of fellowships with free tuition sponsored by UNESCO: 1.

ID 2016A 12 AGH PL. Foundry Engineering (Field of research). Influence of cerium on the morphology of non metallic inclusion in microralloyed steel (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 steel metallurgy materials engineering, physics and mathematics. Proposed starting date: 01.10.2016. Language: English. UNESCO Member States (Asia, Europe); Number of fellowships with free tuition sponsored by UNESCO: 1.

ID 2016A 13 AGH PL. Foundry Engineering . (Field of research) Evolution of chemical composition of non-metallic precipitates generated in the process of de-oxidization and modification of lanthanum steel (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 steel metallurgy materials engineering, physics and mathematics. Project duration: 6 months. Proposed starting date: 01.10.2016. Language: English. UNESCO Member States (Asia, Europe); Number of fellowships with free tuition sponsored by UNESCO: 1.

ID 2016A 14 AGH PL. Foundry Engineering (Field of research). Influence of the neodymium on the morphology of non-metallic inclusion in steel (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 steel metallurgy materials engineering, physics and mathematics. Project duration: 6 months. Proposed starting date: 01.10.2016. Language: English. UNESCO Member States (Asia, Europe); Number of fellowships with free tuition sponsored by UNESCO: 1.

ID 2016A 15 AGH PL. Geology (Field of research). Geological characteristic of tin deposit in Africa (Project title). Academic requirements: Candidates should have a B.Sc. or M.Sc. degree.; basic knowledge on mineral deposits. Qualifications required: be proficient in reading and writing in English; be not more than 30 years of age; and be in good health, both physically and mentally; general knowledge in geology and optical mineralogy. Project duration: 6 months. Proposed starting date: 01.10.2016. Language: English. UNESCO Member States (Africa, Asia); Number of fellowships with free tuition sponsored by UNESCO: 4.

ID 2016A 16 AGH PL. Computer Vision (Field of research). Research in Computer Vision and Cognitive Robotics (Project title). Academic requirements: Candidates should have a B.Sc. or M.Sc. degree.; very good background in mathematics, interests in computer science, and particularly in computer vision and robotics. Qualifications required: be proficient in reading and writing in English; be not more than 25 years of age; and be in good health, both physically and mentally; general knowledge of programming in C/C++, Matlab or Python. Basic knowledge of image processing and analysis techniques. Strong background in mathematics, particularly in linear algebra. Project duration: 6 months. Proposed starting date: 01.10.2016. Language: English. UNESCO Member States (Asia); Number of fellowships with free tuition sponsored by UNESCO: 2.

ID 2016A 17 AGH PL. Materials science (Field of research). Advanced Ceramic Materials – synthesis, properties and possible applications (Project title). Academic requirements: Candidates should have a B.Sc. or M.Sc. degree in material science or chemistry. Qualifications required: be proficient in reading and writing in English; be not more than 30 years of age; and be in good health, both physically and mentally; general knowledge in material science (especially in ceramic technology of porous materials); ability to work in a group, good communication skills; ideally candidates will be highly motivated, innovative with some experimental and process development skills and an open minded approach to new ideas and concepts. Project duration: 6 months. Proposed starting date: 01.10.2016. Language: English. UNESCO Member States (Asia, Africa, Latin America); Number of fellowships with free tuition sponsored by UNESCO: 2.



ID 2016A 18 AGH PL. Materials science (Field of research). Granular metals – fabrication, characterization and modeling (Project title). Academic requirements: Candidates should have a B.Sc. or M.Sc. degree in chemistry, physics or material engineering. Qualifications required: have a general knowledge in chemistry and physics; be fluent in reading and writing in English; be able to work in group and have good communication skills; be not more than 30 years of age; and be in good health. Proposed starting date: 01.10.2016. Language: English. UNESCO Member States (Asia, Africa, Latin America); Number of fellowships with free tuition sponsored by UNESCO: 2.

ID 2016A 19 AGH PL. Materials science (Field of research). Electrochemically Engineered Materials – synthesis, properties and possible applications (Project title). Academic requirements: Candidates should have a B.Sc. or M.Sc. degree in chemistry or material engineering. Qualifications required: general knowledge in chemistry (especially in electrochemical method of obtaining nanostructured materials); be proficient in reading and writing in English; be not more than 30 years of age; ability to work in group, good communication skills; and be in good health, both physically and mentally; Project duration: 6 months. Proposed starting date: 01.10.2016. Language: English. UNESCO Member States (Asia, Africa, Latin America); Number of fellowships with free tuition sponsored by UNESCO: 2.

ID 2016A 20 AGH PL. Nanotechnology (Field of research). MoS₂ based thin films for solar energy conversion (Project title). Academic requirements: Candidates should have a B.Sc. or M.Sc. degree in Physics, Chemistry or Material Engineering. Qualifications required: general knowledge in the field of thin films, solid state physics and chemistry, methods of thin films elaboration; scientific approach to the problem; be proficient in reading and writing in English; ability to work in group and good communication skills; be not more than 30 years of age; and be in good health, both physically and mentally. Project duration: 6 months. Proposed starting date: 01.10.2016. Language: English. UNESCO Member States (Asia, Africa, Latin America); Number of fellowships with free tuition sponsored by UNESCO: 1.

ID 2016A 21 AGH PL. Composite materials (Field of research). Local in situ composite reinforcements in ferrous castings for abrasive wear resistance enhancement (Project title). Academic requirements: Candidates should have a B.Sc. or M.Sc. degree in Materials Science/ Materials Engineering/ Metallurgy or similar. Qualifications required: fluent in written and spoken English; general knowledge in materials investigation techniques (e.g. x-ray diffraction, electron microscopy); be not more than 40 years of age; and be in good health, both physically and mentally. Project duration: 6 months. Proposed starting date: 01.10.2016. Language: English. UNESCO Member States (Asia, Africa, Latin America); Number of fellowships with free tuition sponsored by UNESCO: 1.

ID 2016A 022 AGH PL. Computer vision (Field of research). Embedded implementation of selected vision algorithms using heterogenous Zynq SoC (System on Chip) devices (Project title). Academic requirements: Candidates should have a B.Sc. or M.Sc. degree, background in: computer science (mainly programming in C/C++/ Python/ Matlab/ Open CV and general algorithms), basic skills in computer vision, embedded systems (ARM processor programming and Linux OS) and FPGA devices (e.g. VHDL or Verilog, Xilinx FPGA devices, Xilinx Zynq devices, Xilinx tools like ISE, Vivado, SDK). Only the computer science is mandatory, however others will greatly help finishing the project (no additional time for studying this subjects will be required). Qualifications required: be proficient in reading and writing in English; general knowledge in computer science (programming, Linux OS), computer vision, embedded systems and FGPA devices; be not more than 30 years of age; and be in good health, both physically and mentally. Project duration: 6 months. Proposed starting date: 01.10.2016. Language: English. UNESCO Member States (Asia, Africa, Latin America); Number of fellowships with free tuition sponsored by UNESCO: 2.

ID 2016A 23 AGH PL. Geology and Mining (Field of research). Analysis of use geothermal waters for energetical purposes (Project title). Academic requirements: Candidates should have a B.Sc. or M.Sc. degree, engineering background in the one of the field: mining and geology, heat transfer, civil engineering. Qualifications required: be proficient in reading and writing in English; be not more than 40. years of age; and be good health, both physically and mentally. Project duration: 6 months. Proposed starting date: 01.10.2016. Language: English. UNESCO Member States (Asia, Africa, Latin America); Number of fellowships with free tuition sponsored by UNESCO: 1.



ID 2016A 24 AGH PL. Gas 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; Candidates requirements: 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: 1.10. 2016. Language: English. UNESCO Member States (Africa, Asia, Latin America, Caribbean and Pacific); Number of fellowships with free tuition sponsored by UNESCO: 2.

ID 2016A 25 AGH PL. Gas 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; Candidates requirements: 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: 1.10. 2016. Language: English. UNESCO Member States (Africa, Asia, Latin America, Caribbean and Pacific); Number of fellowships with free tuition sponsored by UNESCO: 2.

ID 2016A 26 AGH PL. Geotourism (Field of research). Selected geological objects and their geotouristic values (Project title). Academic requirements: Candidates should have a B.Sc. or M.Sc. degree in geology, geophysics and environmental protection; Candidates requirements: 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 Geotourism. Project duration: 6 months. Proposed starting date: 01.10.2016. Language: English. UNESCO Member States (Africa, Asia, Latin America, Caribbean and Pacific); Number of fellowships with free tuition sponsored by UNESCO: 2.

ID 2016A 27 AGH PL. Gas 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; Candidates requirements: 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: 1.10. 2016. Language: English. UNESCO Member States (Africa, Asia, Latin America, Caribbean and Pacific); Number of fellowships with free tuition sponsored by UNESCO: 2.

ID 2016A 28 AGH PL. Gas Engineering (Field of research). Nodal analysis for unconventional tight 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; Candidates requirements: 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: 1.10. 2016. Language: English. UNESCO Member States (Africa, Asia, Latin America, Caribbean and Pacific); Number of fellowships with free tuition sponsored by UNESCO: 2.

ID 2016A 29 AGH PL. Geology (Field of research). Geological characteristic of chromite deposit in Balkan (Project title). Academic requirements: Candidates should have a B.Sc. or M.Sc. degree, basic knowledge on mineral deposits. Qualifications required: be proficient in reading and writing in English; be not more than 30 years of age; and be in good health, both physically and mentally; general knowledge in geology is required; knowledge in optical mineralogy is welcome. Project duration: 6 months. Proposed starting date: 01.10.2016. Language: English. UNESCO Member States (Africa, Asia, Europe); Number of fellowships with free tuition sponsored by UNESCO: 1.

ID 2016A 30 AGH PL. Geology (Field of research). Geological characteristic of metallic deposit in Balkan (Project title). Academic requirements: Candidates should have a B.Sc. or M.Sc. degree, basic knowledge on mineral deposits. 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 is required; knowledge in optical mineralogy is welcome. Project duration: 6 months. Proposed starting date: 01.10.2016. Language: English. UNESCO Member States (Africa, Asia, Europe); Number of fellowships with free tuition sponsored by UNESCO: 1.



UNESCO/POLAND CO-SPONSORED FELLOWSHIPS PROGRAMME 2016

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 **thirty-five (35)** fellowships of **six (6)** months duration starting on 1st October 2016 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 **1350 PLN** (1 USD = approximately 3.9 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 **1350 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 30 April 2016 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, **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 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 30 April 2016 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: unesco@agh.edu.pl
 www.unesco.agh.edu.pl

Annex 01
List of projects proposal,
UNESCO/ Poland Co-sponsored Fellowship Programme in Engineering
edition 2016 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 thirty five (35) fellowships in English language only of six (6) months duration starting on 1st October 2016 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 2016A 01 AGH PL. Drilling Engineering (Field of research). Drilling and Hydraulic Fracturing (Project title). Academic requirements: Candidates should have a B. Sc. or M.Sc. degree, preferably in petroleum, earth engineering, physics, mathematics or computer science. 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: 01.10.2016. Language: English. UNESCO Member States (Asia, Africa, Latin America); Number of fellowships with free tuition sponsored by UNESCO: 2.

ID 2016A 02 AGH PL. Geophysics or Physics (Field of research). Study of radionuclides and rare elements deposits (Project title). Academic requirements: Candidates should have a B.Sc. degree, good English and principle knowledge about rare and radioactive deposits, prefer for candidate with solid and water samples collected from deposits in his country. 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 geochemistry, nuclear geology and physics. Project duration: 6 months. Proposed starting date: 01.10.2016. Language: English. UNESCO Member States (Asia and Africa); Number of fellowships with free tuition sponsored by UNESCO: 1

ID 2016A 03 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: 01.10.2016. Language: English. UNESCO Member States (Asia, Africa, Latin America); Number of fellowships with free tuition sponsored by UNESCO: 2.

ID 2016A 04 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: 01.10.2016. Language: English. UNESCO Member States (Asia, Africa, Latin America); Number of fellowships with free tuition sponsored by UNESCO: 4.



ID 2016A 05 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: 01.10.2016. Language: English. UNESCO Member States (Asia, Africa, Latin America); Number of fellowships with free tuition sponsored by UNESCO: 4.

ID 2016A 06 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. Project duration: 6 months. Proposed starting date: 01.10.2016. Language: English. UNESCO Member States (Asia, Africa, Latin America); Number of fellowships with free tuition sponsored by UNESCO: 2.

ID 2016A 07 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: 01.10.2016. Language: English. UNESCO Member States (Asia, Africa, Latin America); Number of fellowships with free tuition sponsored by UNESCO: 2.

ID 2016A 08 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: 01.10.2016. Language: English. UNESCO Member States (Asia, Africa, Latin America); Number of fellowships with free tuition sponsored by UNESCO: 2

ID 2016A 09 AGH PL. Sensor Engineering (Field of research). Inter-digital Piezoelectric transducers in Structural Health Monitoring (Project title). Academic requirements: Candidates should have a B.Sc. or M.Sc. degree; the candidate should have both a B.Sc. an M.Sc. degree. Qualifications required: be proficient in reading and writing in English; be not more than 30 years of age; and be in good health, both physically and mentally; experience in the field of piezoelectric transducers. General knowledge in ultrasound, sensor engineering, signal processing. Project duration: 6 months. Proposed starting date: 01.10.2016. Language: English. UNESCO Member States (Asia, Africa, Latin America); Number of fellowships with free tuition sponsored by UNESCO: 1.

ID 2016A 10 AGH PL. 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. 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: 01.10.2016. Language: English. UNESCO Member States (Asia, Africa, Latin America); Number of fellowships with free tuition sponsored by UNESCO: 1.

ID 2016A 11 AGH PL. Foundry Engineering (Field of research). Ecological assessment of the polymer binder in the form: copolymer of maleic acid/ modified polysaccharide (Project title). Academic requirements: Candidates should have a B.Sc. degree. Qualifications required: be proficient in reading and writing in English; candidate was previously a scholarship in another program, be not more than 25 years of age; be in good health, both physically and mentally; general knowledge in chemistry of polymers engineering, environmental foundry engineering, harmful substances. Project duration: 6



months. Proposed starting date: 01.10.2016. Language: English. UNESCO Member States (Europe, Latin America); Number of fellowships with free tuition sponsored by UNESCO: 1.

ID 2016A 12 AGH PL. Foundry Engineering (Field of research). Influence of cerium on the morphology of non metallic inclusion in microralloyed steel (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 steel metallurgy materials engineering, physics and mathematics. Proposed starting date: 01.10.2016. Language: English. UNESCO Member States (Asia, Europe); Number of fellowships with free tuition sponsored by UNESCO: 1.

ID 2016A 13 AGH PL. Foundry Engineering . (Field of research) Evolution of chemical composition of non-metallic precipitates generated in the process of de-oxidization and modification of lanthanum steel (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 steel metallurgy materials engineering, physics and mathematics. Project duration: 6 months. Proposed starting date: 01.10.2016. Language: English. UNESCO Member States (Asia, Europe); Number of fellowships with free tuition sponsored by UNESCO: 1.

ID 2016A 14 AGH PL. Foundry Engineering (Field of research). Influence of the neodymium on the morphology of non-metallic inclusion in steel (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 steel metallurgy materials engineering, physics and mathematics. Project duration: 6 months. Proposed starting date: 01.10.2016. Language: English. UNESCO Member States (Asia, Europe); Number of fellowships with free tuition sponsored by UNESCO: 1.

ID 2016A 15 AGH PL. Geology (Field of research). Geological characteristic of tin deposit in Africa (Project title). Academic requirements: Candidates should have a B.Sc. or M.Sc. degree.; basic knowledge on mineral deposits. Qualifications required: be proficient in reading and writing in English; be not more than 30 years of age; and be in good health, both physically and mentally; general knowledge in geology and optical mineralogy. Project duration: 6 months. Proposed starting date: 01.10.2016. Language: English. UNESCO Member States (Africa, Asia); Number of fellowships with free tuition sponsored by UNESCO: 4.

ID 2016A 16 AGH PL. Computer Vision (Field of research). Research in Computer Vision and Cognitive Robotics (Project title). Academic requirements: Candidates should have a B.Sc. or M.Sc. degree.; very good background in mathematics, interests in computer science, and particularly in computer vision and robotics. Qualifications required: be proficient in reading and writing in English; be not more than 25 years of age; and be in good health, both physically and mentally; general knowledge of programming in C/C++, Matlab or Python. Basic knowledge of image processing and analysis techniques. Strong background in mathematics, particularly in linear algebra. Project duration: 6 months. Proposed starting date: 01.10.2016. Language: English. UNESCO Member States (Asia); Number of fellowships with free tuition sponsored by UNESCO: 2.

ID 2016A 17 AGH PL. Materials science (Field of research). Advanced Ceramic Materials – synthesis, properties and possible applications (Project title). Academic requirements: Candidates should have a B.Sc. or M.Sc. degree in material science or chemistry. Qualifications required: be proficient in reading and writing in English; be not more than 30 years of age; and be in good health, both physically and mentally; general knowledge in material science (especially in ceramic technology of porous materials); ability to work in a group, good communication skills; ideally candidates will be highly motivated, innovative with some experimental and process development skills and an open minded approach to new ideas and concepts. Project duration: 6 months. Proposed starting date: 01.10.2016. Language: English. UNESCO Member States (Asia, Africa, Latin America); Number of fellowships with free tuition sponsored by UNESCO: 2.



ID 2016A 18 AGH PL. Materials science (Field of research). Granular metals – fabrication, characterization and modeling (Project title). Academic requirements: Candidates should have a B.Sc. or M.Sc. degree in chemistry, physics or material engineering. Qualifications required: have a general knowledge in chemistry and physics; be fluent in reading and writing in English; be able to work in group and have good communication skills; be not more than 30 years of age; and be in good health. Proposed starting date: 01.10.2016. Language: English. UNESCO Member States (Asia, Africa, Latin America); Number of fellowships with free tuition sponsored by UNESCO: 2.

ID 2016A 19 AGH PL. Materials science (Field of research). Electrochemically Engineered Materials – synthesis, properties and possible applications (Project title). Academic requirements: Candidates should have a B.Sc. or M.Sc. degree in chemistry or material engineering. Qualifications required: general knowledge in chemistry (especially in electrochemical method of obtaining nanostructured materials); be proficient in reading and writing in English; be not more than 30 years of age; ability to work in group, good communication skills; and be in good health, both physically and mentally; Project duration: 6 months. Proposed starting date: 01.10.2016. Language: English. UNESCO Member States (Asia, Africa, Latin America); Number of fellowships with free tuition sponsored by UNESCO: 2.

ID 2016A 20 AGH PL. Nanotechnology (Field of research). MoS₂ based thin films for solar energy conversion (Project title). Academic requirements: Candidates should have a B.Sc. or M.Sc. degree in Physics, Chemistry or Material Engineering. Qualifications required: general knowledge in the field of thin films, solid state physics and chemistry, methods of thin films elaboration; scientific approach to the problem; be proficient in reading and writing in English; ability to work in group and good communication skills; be not more than 30 years of age; and be in good health, both physically and mentally. Project duration: 6 months. Proposed starting date: 01.10.2016. Language: English. UNESCO Member States (Asia, Africa, Latin America); Number of fellowships with free tuition sponsored by UNESCO: 1.

ID 2016A 21 AGH PL. Composite materials (Field of research). Local in situ composite reinforcements in ferrous castings for abrasive wear resistance enhancement (Project title). Academic requirements: Candidates should have a B.Sc. or M.Sc. degree in Materials Science/ Materials Engineering/ Metallurgy or similar. Qualifications required: fluent in written and spoken English; general knowledge in materials investigation techniques (e.g. x-ray diffraction, electron microscopy); be not more than 40 years of age; and be in good health, both physically and mentally. Project duration: 6 months. Proposed starting date: 01.10.2016. Language: English. UNESCO Member States (Asia, Africa, Latin America); Number of fellowships with free tuition sponsored by UNESCO: 1.

ID 2016A 022 AGH PL. Computer vision (Field of research). Embedded implementation of selected vision algorithms using heterogenous Zynq SoC (System on Chip) devices (Project title). Academic requirements: Candidates should have a B.Sc. or M.Sc. degree, background in: computer science (mainly programming in C/C++/ Python/ Matlab/ Open CV and general algorithms), basic skills in computer vision, embedded systems (ARM processor programming and Linux OS) and FPGA devices (e.g. VHDL or Verilog, Xilinx FPGA devices, Xilinx Zynq devices, Xilinx tools like ISE, Vivado, SDK). Only the computer science is mandatory, however others will greatly help finishing the project (no additional time for studying this subjects will be required). Qualifications required: be proficient in reading and writing in English; general knowledge in computer science (programming, Linux OS), computer vision, embedded systems and FGPA devices; be not more than 30 years of age; and be in good health, both physically and mentally. Project duration: 6 months. Proposed starting date: 01.10.2016. Language: English. UNESCO Member States (Asia, Africa, Latin America); Number of fellowships with free tuition sponsored by UNESCO: 2.

ID 2016A 23 AGH PL. Geology and Mining (Field of research). Analysis of use geothermal waters for energetical purposes (Project title). Academic requirements: Candidates should have a B.Sc. or M.Sc. degree, engineering background in the one of the field: mining and geology, heat transfer, civil engineering. Qualifications required: be proficient in reading and writing in English; be not more than 40. years of age; and be good health, both physically and mentally. Project duration: 6 months. Proposed starting date: 01.10.2016. Language: English. UNESCO Member States (Asia, Africa, Latin America); Number of fellowships with free tuition sponsored by UNESCO: 1.



ID 2016A 24 AGH PL. Gas 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; Candidates requirements: 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: 1.10. 2016. Language: English. UNESCO Member States (Africa, Asia, Latin America, Caribbean and Pacific); Number of fellowships with free tuition sponsored by UNESCO: 2.

ID 2016A 25 AGH PL. Gas 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; Candidates requirements: 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: 1.10. 2016. Language: English. UNESCO Member States (Africa, Asia, Latin America, Caribbean and Pacific); Number of fellowships with free tuition sponsored by UNESCO: 2.

ID 2016A 26 AGH PL. Geotourism (Field of research). Selected geological objects and their geotouristic values (Project title). Academic requirements: Candidates should have a B.Sc. or M.Sc. degree in geology, geophysics and environmental protection; Candidates requirements: 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 Geotourism. Project duration: 6 months. Proposed starting date: 01.10.2016. Language: English. UNESCO Member States (Africa, Asia, Latin America, Caribbean and Pacific); Number of fellowships with free tuition sponsored by UNESCO: 2.

ID 2016A 27 AGH PL. Gas 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; Candidates requirements: 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: 1.10. 2016. Language: English. UNESCO Member States (Africa, Asia, Latin America, Caribbean and Pacific); Number of fellowships with free tuition sponsored by UNESCO: 2.

ID 2016A 28 AGH PL. Gas Engineering (Field of research). Nodal analysis for unconventional tight 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; Candidates requirements: 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: 1.10. 2016. Language: English. UNESCO Member States (Africa, Asia, Latin America, Caribbean and Pacific); Number of fellowships with free tuition sponsored by UNESCO: 2.

ID 2016A 29 AGH PL. Geology (Field of research). Geological characteristic of chromite deposit in Balkan (Project title). Academic requirements: Candidates should have a B.Sc. or M.Sc. degree, basic knowledge on mineral deposits. Qualifications required: be proficient in reading and writing in English; be not more than 30 years of age; and be in good health, both physically and mentally; general knowledge in geology is required; knowledge in optical mineralogy is welcome. Project duration: 6 months. Proposed starting date: 01.10.2016. Language: English. UNESCO Member States (Africa, Asia, Europe); Number of fellowships with free tuition sponsored by UNESCO: 1.

ID 2016A 30 AGH PL. Geology (Field of research). Geological characteristic of metallic deposit in Balkan (Project title). Academic requirements: Candidates should have a B.Sc. or M.Sc. degree, basic knowledge on mineral deposits. 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 is required; knowledge in optical mineralogy is welcome. Project duration: 6 months. Proposed starting date: 01.10.2016. Language: English. UNESCO Member States (Africa, Asia, Europe); Number of fellowships with free tuition sponsored by UNESCO: 1.

