

Minutes of the 2nd WFURS Annual Meeting and Conference 19-21 October 2014 at Montanuniversität Leoben (MUL), Austria

Attendees: according to attendees' list

19th October, 15-17:00: Executive Committee Meeting, MUL Franz-Josef-Strasse 18, 1st floor

- See also Minute of the Executive Committee Meeting
- 3 new members were agreed by the Executive Committee (now 100 members)
- Procedure of signing the Declaration of Consent, WFURS benefits, WFURS fees
- New Host 2015: Akita University
- General Remarks

19th October 2014, 17-20:00: Welcome, Aula MUL Franz-Josef-Strasse 18, 2nd Floor

Open talks, networking

20th October, 9-10am: Opening Remarks, IZW Roseneggerstrasse 12, 4th floor

- Carsten Drebenstedt (Technical University Bergakademie Freiberg, Germany)
 - Welcome to all attendees
 - Thanks to MUL to host this meeting and conference
 - results of Executive Committee meeting (minutes)
 - change in program: 3 working groups will report in the plenum
 - named 7 new members 2014:
 - Taita Taveta University College, Voi, Kenya
 - Georgian Technical University, Tbilisi, Georgian Republic
 - Universidad Nacional de San Martín (Study Centre of Sustainability CEPS), Argentina
 - University of Aden, Yemen
 - Universidad Nacional de Catamarca, Argentina
 - Université de Liège, Belgium
 - Donbass State Technical University, Ukraine
- Bernd Meyer (Technical University Bergakademie Freiberg, Germany)
 - Scripture "Sylvicultura Oeconomica" published 300 years ago (1713) by Hans Carl von Carlowitz: There he required such a conservation and cultivation of forest, which affords a continuous, consistent and sustainable utilization. ("sothane Conservation und Anbau des Holtzes [...], daß es eine kontinuierliche, beständige und nachhaltige Nutzung gebe"). He wrote it concerning the big demand for wood during important mining period in Germany and Europe that time.
 - leaflet by TU Bergakademie Freiberg "Internationalization strategy 2020", for information and own thinking

- development of WFURS last years: foundation by TU Bergakademie Freiberg and National Mineral Resource University St. Petersburg 2012, installation of working groups, 1st Executive Committee Meeting (25th October 2012, Berlin), 1st Annual Meeting and Conference 2013 in Trondheim. Greetings from Johan E. Hustad,
- tomorrow results of 4 working groups:
 - constitution/bylaws, learning outcomes, mobility, networking
- fixed rules and clear structures of WFURS are important to allow continuous work and further organization
- important: role of universities must be consolidated because of strong competition
- glad to have a small group of about 20 countries represented in Leoben
- now 100 WFURS members
- thanks to MUL and Peter Moser

- Peter Moser (Montanuniversität Leoben, Austria)
 - short introduction of town Leoben
 - short introduction of MUL
 - introduction to KIC Raw MatTERS (knowledge and innovation community), Research Center RIC ESEE (East-SouthEast-Europe), Kick-off 18/19 November 2014

20th October 2014, 10-12am: International presentations

20th October 2014, 12-18:45: Tour to town Eisenerz and Erzberg

- Hauly tour to Erzberg, Bohrerschmiede
- International Presentations
 - ✓ Comments on Hamadi Boga's presentation:
 - Kenya needs staff for a planned centre (knowledge gap!), contact him.
 - Xu Xiangyang (China) suggests to participate in a program, contact her and H. Boga.
 - Carsten Drebenstedt: cooperation also with neighbor countries, not only see separately Kenya
 - ✓ Comments on Chan Wirasinghe's presentation:
 - Wirasinghe: catchword "Political Futbol"
 - ✓ Comments on Bernhard Dold's presentation:
 - Dold: Motivation is most important, consideration of Minerals instead of single Elements concerning characterization of ores
- Poster session:
 - VSB Technical University of Ostrava, Czech Rep., Vladimír Slivka et al.: Competence Center for Effective and Ecological Mining of Mineral Resources (CEEMIR)
 - University of Mining and Geology "St. Ivan Rilski", Bulgaria, Pavel Pavlov et al.: Project BG041PO001-3.3.07-002 "Students Practices", of Human Resources Development Operational Program, co-financed from the European Social Fund (ESF)
 - National Mining University of Ukraine, Gennadiy Pivnyak, Roman Dychkovskyi: Introduction of the University, Borehole technology of underground coal gasification (BUCG)

- University of Petrosani, Romania, Susana and Victor Arad: Research Development and Technology Transfer in the University of Petrosani
- Pontificia Universidad Católica de Chile, Guillermo Marshall: Sustainability Initiative 2011-2014

20th October 2014, 18:45-22:30: Tour back to town Eisenerz, Dinner with Cultural Program at Innerberger Gewerkschaftshaus

21st October 2014, 9-10:30am, IZW: Business Session for Constitution and Bylaws (Wayne Pennington)

- Presentation of the draft of the Constitution and discussion of the suggested alternatives discussed points:
 - definition of “membership”: a member is understood as the entire institution or university, decisions are made by members.
 - Article 6: 3 types of membership, 1 additional “honorary” membership for individuals (not voting membership)
 - Article 10: transfer of the WFURS office can be decided with 50% plus 1 by the entire Executive committee
 - Article 11: The Regional Representatives shall consist of two Full Member institutions from each of the six or more regions as defined in the Bylaws.
 - Article 12: role and responsibility of the Secretary General: organization of Executive Committee Meetings and general oversight of the WFURS Annual Meeting, communication outside of WFURS
 - Article 14: Elections:
President elected or re-elected each year at Annual General Meeting, Secretary General and Treasurer shall be elected or re-elected every fourth year. There is no limit to the number of times they may be re-elected
 - Article 17: The Executive Committee meeting shall be a part of one day of the Annual Meeting; A part of one day of the WFURS Annual Meeting will be scheduled as a General Membership Meeting; Conference: The Executive Committee and the meeting host will come up with a theme and format of the conference and any other activities. The Conference shall be open to all guests.
 - Article 18: Working groups:
WFURS shall have Standing Committees directed to the following topics, but is not limited only to these regulations:
 - Assistance and guidelines for academic programs on sustainability
 - Mobility of members (including capacity building and education)
 - Networking (including research and development, industry, conferences and publications)
 - Article 20: conduct regular surveys of education programs and student/staff numbers, develop strategies for WFURS to improve sustainability programs worldwide.

- Article 21: membership fees: A fee differential may be allowed among Full members, such that member institutions from developed countries and those from developing countries may be assigned different fees, as to be determined in the Bylaws.

➤ Bylaws will be prepared in the next step

21st October 2014, 10:30am, IZW: Working group Learning outcome (Carsten Drebenstedt, presentation see homepage)

- To define the targets of WFURS in developing educational standards were reviewed the Washington Accord (requirements for professional engineers) and the ABET (accreditation standards for BSc and MSc programs).
- The Washington accord defines the graduate attributes like a **widely accepted common reference** for bodies to describe the outcomes of substantially equivalent qualifications (no international standard for accreditation themselves). Attributes divided in: problem solving (WP), range of engineering activities (EA), knowledge profiles (WK), attribute profiles (WA) and professional competency profiles (EC).
 - Related is especially the knowledge profile WK7: Comprehension of the role of **engineering in society** and identified issues in engineering practice in the discipline: **ethics** and the professional **responsibility** of an engineer to public **safety**; the impacts of engineering activity: **economic, social, cultural, environmental and sustainability**.
 - Related WA's are especially: The Engineer in the society (WA6), Environment and Sustainability (WA7), Ethics (WA8) and communication (WA10).
 - Related EC's are: protection of society (EC6), legal and regulatory (EC7), ethics (EC8) communication (EC 10) and responsibility for decision (EC 13).
 - The ABET defines accreditation requirements by criteria, such like: students, program educational objectives, student outcomes, continuous improvement, curriculum, faculty, facilities and institutional support.
 - Related students' outcomes are:
 - (c) an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability
 - (f) an understanding of professional and ethical responsibility
 - (g) an ability to communicate effectively
 - (h) the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context
 - The task for WFURS defines in the specification of the attributes and outcomes for resource related programs in difference to e.g. civil, electrical or mechanical engineering programs.
- Discussion:
- Silvia Rosas was involved in such an accreditation under ABET
 - Workshop proposal together with experts from Washington accord and ABET

21st October 2014, 11:40am, IZW: Working group Mobility (Broder Merkel)

- Questionnaire in May 2014:
 - Type of questionnaire: EXCEL file to be filled by the WFURS members;
 - Goal: compile the study programs on sustainable resource utilization and related disciplines (as defined during former WFURS meetings);
 - Result: only about 15% of the universities filled in the form.
 - Possible reasons: database of e-mail-addresses not suitable, others.
 - Suggestions: installation of an intranet, improving WFURS members' database (rector+further contact person), send questionnaire again.

21st October 2014, 12:00am, IZW: working group Networking (Silvia Rosas, presentation see homepage)

- The initiative "Latin America Natural Resources Academy with a certificate in International Sustainable Resource Development" was presented as an example of shared practices in Education on Sustainability having the support of governmental initiatives like the "100K Strong of the Americas".
- Other similar exchange programs could be developed searching other possible funding sources like the International Study and Training Partnership Program (ISAP) of the German Academic Exchange Service (DAAD). The "Networking" working-group offered its advise to other potential similar initiatives by members of the forum.

21st October 2014, 13-13:30, IZW: Voting for the new Constitution, member fee (Wayne Pennington)

- definition of "absolute majority": 50% plus 1
- the final constitution passed by a vote of 19-0, no opposed, no abstention
- Member fee proposal as the draft says:

✓ full members annual rate	1000€
✓ Associate members annual rate	500€
✓ Corporate member annual rate at a minimum	2000€ (not discussed)
✓ Industrial member annual rate at a minimum	5000€ (not discussed)
- suggestion to full member rate: developed countries 100%, developing countries 50%, (definition of "developing country" by DAC/ OECD).
- Discussion about the cost of running the meeting 2015: it should not be paid entirely by registration fee, but also subsidized by membership fees.
- Voting about the start of member fee payment from 2015 on: 11 for, 1 against, 2 unsure. Exact date to be decided

21st October 2014, 14:00, IZW: Election of the new Board Members

- WFURS President: Bernd Meyer (Technical University Bergakademie Freiberg, Germany) for one year
- WFURS Secretary General: Carsten Drebenstedt (Technical University Bergakademie Freiberg, Germany) for four years
- WFURS Treasurer: Akira Imai (Akita University; Japan) for four years

21st October 2014, 14:15 -14:30, IZW: Introduction of Akita University (Akira Imai, see homepage)

- Date for Annual Meeting and 3rd Conference in Akita: 13-17th September 2015
- Proposed registration fee: 250€ (to be discussed and decided)
- to be decided: who will be responsible for organization from Akita's side (registration, program apart from scientific contributions, paperwork, rooms for venue, dinner, transfer during meeting, ...) as Ms. Katrin Brugger with assistants and Peter Moser did in Leoben

21st October 2014, 14:50-18:15, IZW: International Presentations

Information of possible hosts for 2016:

University of Mines and Technology Tarkwa, Ghana,
National Mining University of Ukraine, Dnepropetrovsk

21st October, 18:15, IZW: Farewell

Keeper of the minutes: Cristiane Pagac



Confirmed by: Secretary General, Carsten Drebenstedt

30th October 2014