Formats of Research Cooperation

DIES Seminar „German-Iranian Cooperation in Research“

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THE MODERN CLASSIC

- Berlin’s oldest university: 1810
- Four campuses
- 9 Faculties, offering all main disciplines of humanities, social and cultural sciences, human medicine, mathematics & natural sciences – “everything but engineering”
- 5 interdisciplinary centers
- Approx. 35,000 students (Charité, + 7000)
- 16-17% students from abroad
- 5,000 new students each year
- 419 tenured professors, 2000 academic staff
In 1810, Wilhelm von Humboldt’s vision for a new type of university became reality.

His vision:

- to uphold the ideal of research without restrictions
- to provide an all-round education
- the unity of research and teaching

These principles soon became general practice throughout the world.
Alexander von Humboldt, Wilhelm von Humboldt’s younger brother, was an important geographer, naturalist and explorer.

- Explorations in Latin America and Russia
- Documenting his travels and findings from a modern scientific point of view
- Inspired expansion / creation of natural sciences
- Public lectures “Kosmos”

He was also a pioneer of many subjects in the natural sciences, as well as a cofounder of geography as an empirical science.
29 Nobel Prize Winners
Famous scholars: Albert Einstein, Max Planck, Georg Wilhelm Friedrich Hegel
Famous students: Otto von Bismarck, Karl Marx
Jacob and Wilhelm Grimm’s private library
Winkelmann Institute

But also turbulent history in the Third Reich and the GDR

Today: committed to reform, committed to critical distance from political influence, committed to equal opportunity and international participation
FORMATS OF RESEARCH COOPERATION

- Joint application for research money with bi-/multilateral partners
- Exchange of Ph.D.s candidates and students
- Joint workshops and summer/winterschools: singly and in clusters of particular topics, at home and abroad -> structural cooperation
- Strategic partnerships with single or groups of partners
- Exchange within projects: scientists/scholars and students – workshops, conferences, digital meetings
- Joint programs

The role of seed money for project development!
HUMBOLDT-IRANIAN COOPERATION: FORMATS

• Great interest at HU from the reopening campaign’s beginning in cooperation with Iran on the part of scientists
• Existing contacts in geography, physics, BIM, theology, agriculture, and psychology. Additional interest in humanities, library science, chemistry, and ancient studies as well as law.
• One of Humboldt’s great strengths is in interdisciplinary research: contact established to the Integrated Research Institute for the Sciences – IRIS Adlershof: research on novel hybrid materials and functional systems are explored that exhibit so far inaccessible optical, electronic, mechanical and chemical properties.
Main Topics:

- inorganic / organic hybrid materials for electronics, optics and photonics,
- printed electronics,
- nano-optics and spectroscopy,
- physics of macromolecules,
- micro- and nanoanalytics.
The following resources will be accessible in 2019.
2.500 m² labs, 2.200 m² offices, common- and seminar rooms.

**Methods and Processes**

- standard chemical synthesis (7 fume hoods, 1 HF-suitable)
- thin film deposition (ALD, MBE)
- printing methods
- photo- and electron beam lithography
- integrated inert gas glove-box system (vacuum sublimation & spin-coating, device fabrication)
- extensive device fabrication (HyLED, HyPV, HyFET, sensor, memories...)

**Characterization techniques**

- extensive optoelectronic device characterization
- scanning electron microscopy
- photoluminescence spectroscopy
• The Iranian group met with many of the professors with whom they share research interests. Many new contacts established, some joint projects agreed on.
• A small group of Ph.D. students will come to Germany and go to Iran for short-term research stays (1-2 months). Finding financing will be crucial.
• The next workshop in Teheran has been agreed on.
• DFG funding for this workshop has provided impetus for submitting further joint proposals.
Chances and Expectations

- VISA!
- Very difficult to maintain momentum when the barriers are so high for consular service
- Advice on funding various parts of the planned exchange
- Expectations are very high on the Iranian side ... but that may be helpful
- The need for seed money.
Post-Bologna Process has triggered new thoughts about teaching and how to connect it to research.

• Student protests and their results
• The Bologna Lab – Diversity of Knowledge

An interdisciplinary program for undergraduate students who explore the history of knowledge on the basis of concrete objects: the radio, Foucault’s Pendulum etc.

Goal is to sharpen students´ understanding of disciplinary thought historically developed and overcome communicative gap between academic disciplines.
Q-Kolleg

Q-Colleges are internationally organised student groups consisting of students at Humboldt-Universität and students of an affiliated university who self-reliantly work in predetermined research projects. They usually run for 2 semesters, granting opportunities for physical mobility as well as virtually shared classrooms.

Since 2012 pilot project in classical archeology U of Nottingham and HU: “methods of interpretation in the visual arts in classical archaeology” in groups that change annually. Regularly hosted video-conferences guarantee the international dialogue, which is enhanced by mutual visits of the affiliated institutions. Other projects include physical mobilities.