



HUMBOLDT-UNIVERSITÄT
ZU BERLIN

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

WILHELM VON HUMBOLDT



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



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.



IMPORTANT TRADITION

- 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.

Joint Workshop Berlin – Tehran 2018



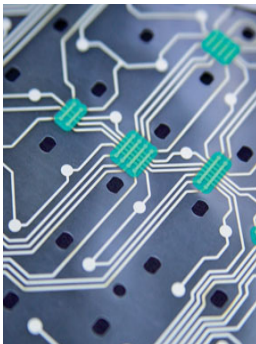
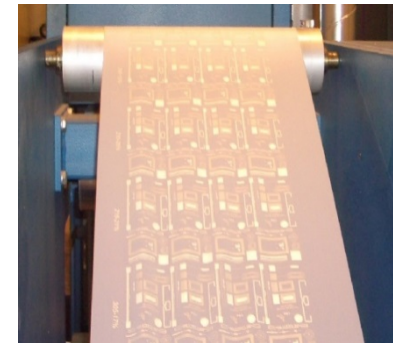
University of Tehran



AMIRKABIR
University of Technology

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



IRIS Workshop in October 2018 Results



- 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 ect.

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.

THANK YOU

