



Kick-Off Meeting

Tallinn

18-19 February 2019

**New Curricula in
Precision Agriculture
Using GIS Technologies
and Sensing Data**

**Technische Universität Berlin,
Faculty V Mechanical Engineering & Transport
Systems,
Department for Aeronautics & Astronautics**



Co-funded by the
Erasmus+ Programme
of the European Union

Joint Project: Capacity Building in the Field of
Higher Education ERASMUS+ 2018

MBA Elena Eyngorn



Technische Universität Berlin

Technische Universität Berlin, a university with international reputation in Germany's capital:

- third largest University of Technology in Germany, member of TU 9
- research and teaching ranging from engineering and natural sciences to humanities and social sciences
- intensive cooperation between science and industry
- joint research projects with numerous non-university research institutes
- alliance between technology and humanities to meet the challenges of the future





Technische Universität Berlin



1770 - 1821

Founding of the antecedent academies:
Mining Academy, Building Academy and Vocational Academy

1879

Unification into Royal Technical College of Berlin



1945 - 1946

After World War II Re-Establishment as Technische Universität

1950

Establishment of the Faculty for Humanities

2005

Formation of Research and Teaching in 7 Faculties

2006

Reforms in administrative and committee structure



Facts and Figures



Students 32.000
female 10.300
international 6.000

Faculties (Schools) 7
Degree programs 109



Professors 400
Scientific staff 2.364
Other Staff 4.402

PhD/year 460

Budget:

From government 280 Mio. €
Additional (third party) funds 170 Mio. €





Technische Universität Berlin



Faculty	Name	Institutes
I	Humanities	7
II	Mathematics and Natural Sciences	6
III	Process Sciences	6
IV	Electrical Engineering and Computer Sciences	6
V	Mechanical Engineering and Transport Systems	7
VI	Planning – Building - Environment	8
VII	Economics and Management	3

International Orientation

Cooperation programs with foreign universities >130

Student exchange programs with foreign universities >330

Dual Degree Programs with foreign universities > 40

European Elite Programs:
Erasmus Mundus 4
EIT ICTLabs 7

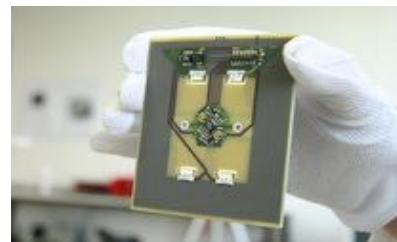
Campus El Gouna (Egypt)



4 Main Points at Chair of Space Technology



Curricula in Space Technology



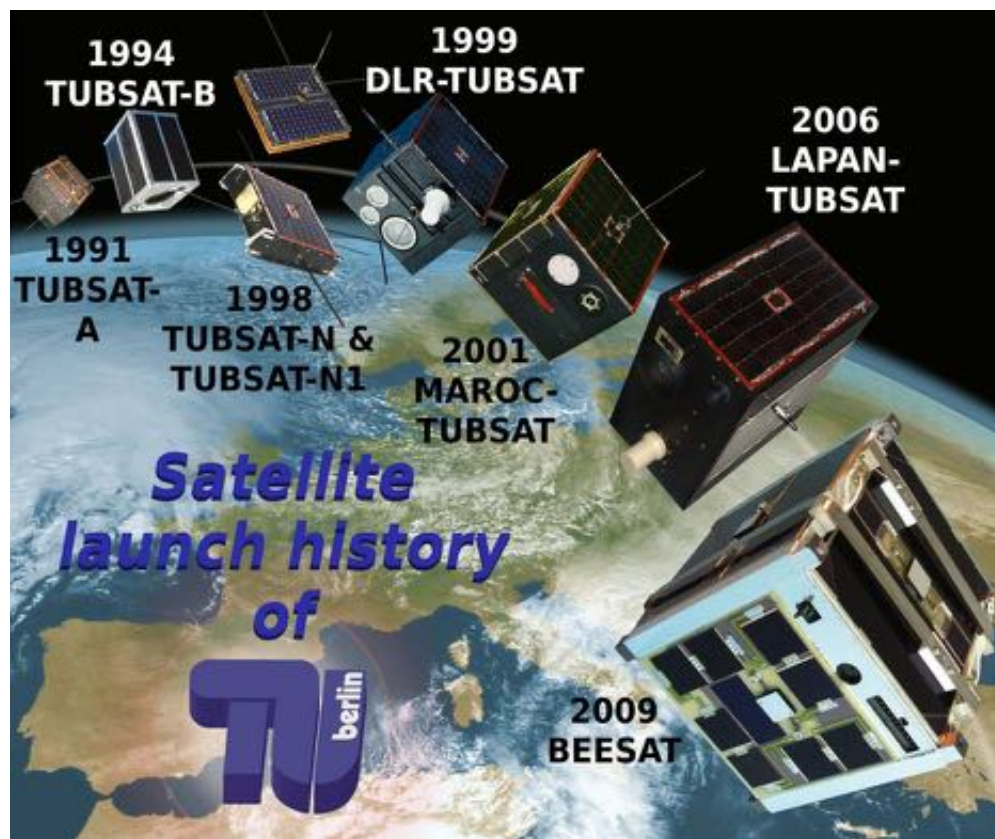
Space Technology Research



Theoretical and Hands-on
Education in Satellite Technology



Theoretical and Hands-on
Education in Rocket Technology



1991	TUBSAT A	35 kg
1994	TUBSAT B	40 kg
1998	TUBSAT N	8,5 kg
1998	TUBSAT N1	3 kg
1999	DLR-TUBSAT	45 kg
2001	MAROC-TUBSAT	48 kg
2007	LAPAN-TUBSAT	45 kg
2009	BEESAT-1	1 kg
2013	BEESAT-2	1 kg
2013	BEESAT-3	1 kg
in preparation		
2014	TUBIN	20 kg
2014	BEESAT-4	1 kg
2015	TECHNOSAT	15 kg
2015	S-NET	4 X 10 kg

4 Modules provided by TUB



Soft Skills for Engineers



Project Management for Engineers

Staff costs

Purpose

To cover the costs of staff necessary for the achievement of project results and on the condition that their salary for the same tasks is compensated only once.

➤ **Administrative** or **academic** tasks:

- ® Curricula development/implementation
- ® Project administration/management

➤ A duly filled in, signed and stamped staff convention (Annex 1 of these guidelines) for each person employed in the project

➤ Time-sheets (the date, number of hours worked on these dates, tasks performed (short description).

➤ Proof of payment if staff is remunerated by the project directly (full-time, part-time, occasional or top-up of regular salary (i.e. bank transfer)

➤ Employment contract

Contractual rules

Travel costs

To cover the costs of travel of staff for mobilities:

- teaching/training assignments, retraining of staff, master classes
- update of courses
- short visits for coordination and planning
- Dissemination
- based on unit costs/principle of the "triggering event"
- Prove that activities have been **actually and properly** implemented
- Expected outputs have been produced but they will not have to **justify the costs actually incurred.**
- flexibility in the way they manage the funds
- necessary for the implementation of the activities concerned



Required documents

Distance Calculator

Distance Band	Flat cost per participant
Between 100 and 499 KM	180-€1.0
Between 500 and 1999 KM	275-€1.0
Between 2000 and 2999 KM	360-€1.0
Between 3000 and 3999 KM	450-€1.0
Between 4000 and 7999 KM	520-€1.0
8000 KM or more	1.000-€1.0

Costs of stay



Category	Value
...	...
...	...
...	...
...	...

Equipment - 22.100,00 for each PC university

Purpose

➤ to cover the costs of equipment directly relevant to the project's objectives such as:

- books, e-books, publications
- MicroLab: PC Pool; Projector HD; Software set: PRO-E, Atmel-Studio; Altium; 1 DistanceLab-Unit for practical use of microelectronics devices: Virtual Micro Controller (VMCU), Microcontroller Basic lab; Controller module ATmega2561 v1.x; Combo board with Sensor module, Motor module and Communication module.
- access to database

Contractual rules

The equipment must:

- be exclusively universities usage and integrated into study process
- be recorded in the inventory of the institution where it is installed
- Upon prior approval of the coordinator

Role of the CUT and TU

- Schedule the co-ordination meetings /conferences/master classes/trainings
- Control of academic achievements
- Control over budget, keeping of all required by the Agency
- documents/contracts/invoices
- Communication with the Agency
- Reporting to the Agency (intermediate report and final report)
- Keep the work plan updated
- Fill in the Table of Achieved Outcomes as activities completed
- Purchase of the equipment
- Coordination and management





Role of ECM

- distribution of project activities between partners and coordination; control of implementation;
- planning of project events and dissemination activities;
- development and regular updating of the project website;
- quality control over conducting of project activities;
- Evaluation of reports from partner institutions (reports 6M;12M;18M;24M; 30M; 36M)





Good bye !

THANK YOU FOR YOUR
ATTENTION!

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Project Team



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