

Information on German Host Institution

COMBINED STUDY AND PRACTICE STAYS FOR ENGINEERS FROM DEVELOPING COUNTRIES (KOSPIE) – TUNISIA

1. Name of Institution:



Hochschule für Technik, Wirtschaft und Medien Offenburg

Offenburg University of Applied Science

2. General Information on Institution:

2.1 Faculties and number of full-time professors:

The Offenburg University of Applied Sciences was founded in 1964 as a state school of engineering and was complemented in 1978 by the business administration location in Gengenbach. In the past ten years, the number of students has more than doubled. Today, around 4100 young people study in the fields of technology, business and media at the two locations in Offenburg and Gengenbach. The four departments offer a broad, interdisciplinary and practice-oriented range of subjects. The main campus in Offenburg is home to three departments, (1) Department of Electrical Engineering, Medical Engineering and Computer Science, (2) Department of Mechanical and Process Engineering and (3) Department of Media and Information. The second campus in picturesque Gengenbach, located in a former Benedictine monastery, is home to the (4) Department of Business and Industrial Engineering.

Also, the Graduate School of Offenburg University offers special courses in English for the global job market. Currently, about 13 percent of all students at the university come from abroad. The Graduate School offers four English-language Master's programs in Information Technology, Energy Technology and Management. In addition, bilateral and multilateral programs with France, Chile and Switzerland are offered. The Graduate School offers a comprehensive and total supply and coordinates business contacts, international university marketing, application and admission procedures, interdisciplinary courses, support for international students, cooperation, international alumni work, quality issues and auditing matters. For this comprehensive offering, the Graduate School has already received numerous awards, including the award of the German Academic Exchange Service (DAAD) with the quality label "TOP 10 International Master's Degree Courses Made in Germany".

Currently, about 4,090 students are taught by 132 professors.

The Hahn-Schickard Association of Applied Research is a non-profit R&D organization based in and supported by the state of Baden-Württemberg, Germany. The strongly industry oriented R&D activities focus on Smart Systems, mainly for medical, telecommunication and industrial applications. Core competences are sensor systems, energy harvesting, micro-medical technology, and CPS covering the value chain from the sensor to the cloud.

The Hahn-Schickard Institute of Micro- and Information Technology in Villingen-Schwenningen boasts 1300 m2 cleanroom facilities for process development, prototyping, and small scale serial production, especially to serve SME needs. HSG is ISO 9001:2015 certified. Around 280 researchers work at four locations of Hahn-Schickard. HSG is constantly participating in many national and international projects.

Hahn-Schickard is a close collaboration partner of Offenburg University.



2.2 Research institutions, research facilities and fields of research:

Offenburg University is renowned for its intense, application-oriented research activities – mostly in close collaboration with regional industries. The budget of external research funds accounts for around 6 Mio. EUR annually in 2020 and is steadily growing.

Special focus areas are organized in eight research institutes in the university. Around 50 labs are available for teaching and research purposes. Also, there is a strong collaboration with other research organisations, like the Fraunhofer Institutes in Freiburg, the KIT in Karlsruhe, and the Hahn-Schickard Association in Freiburg and Villingen-Schwenningen.

2.3 Institution has been accredited by:

The Hochschule Offenburg has been system-accredited since December 2015 and has been awarded with Quality Seal of the Accreditation Council for System Accreditation (Gütesiegel des Akkreditierungsrates für die Systemakkreditierung). The process has been supported by ASIIN e.V.

For the internal accreditation of its study programmes, the higher education institution has established a set of quality assurance procedures, which combine and interlink the technical and content-related assessment and (further) development of the study programme (concept audit or QM monitoring procedure) as well as the review of the implementation of formal external and internal accreditation criteria.

2.4 Does your institution follow the Code of Conduct for exchange programmes?

Not currently.

2.5 Welcome programmes for exchange students:

- We support incoming exchange students through our buddy programme, where experienced students support new incoming exchange students upon their arrival in Germany. Typical support includes picking up arrivals at the train station, helping with finding your way around in Offenburg, support with filling out forms.
- Additional support is of course provided by the International Center of Offenburg University. All our staff are fluent in English and we have a number of staff that are fluent in other languages as well (French, Spanish, Russian, Turkish).
- An experienced staff member supports students with finding suitable accommodation, in our students' residences and in private housing.
- We provide a range of social activities to get to know other students as well as the area, such as excursions and fun events for all international students at Offenburg University.
- The region of Offenburg University, "Wirtschaftsregion Ortenau", is well-known for many innovative and world-leading companies such as Duravit AG (sanitary products), Europa-Park GmbH & Co Mack KG (theme park), Hansgrohe SE (sanitary products), Herrenknecht AG (tunnelling machinery), Hubert Burda Media (publishing), Leitwerk AG (IT and server solutions), Otto Nußbaum GmbH & Co. KG (equipment for garages and vehicle maintenance), Papierfabrik August Koehler AG (paper products), Philipp Kirsch GmbH, Zehnder GmbH (heating and ventilation systems) and many more "hidden champions". Every semester, the Career Center holds workshops in English and German to support students with their applications for internships; these cover all aspects such as identifying suitable companies, writing your Curriculum Vitae and cover letter, and practice for interviews. There is support for finding internships in company in every faculty.



2.6 Location of institution:

Offenburg is located in the south-west of Germany, in close vicinity to the French border and about two hours away from the Swiss border. It has close collaboration with Hahn-Schickard Institute for Micro and Information Technology, located in Villingen-Schwenningen in the heights of Black Forest in an equally economically dense and beautiful landscape.

Hochschule für Technik, Wirtschaft und Medien Offenburg

Campus Offenburg

Badstraße 24 77652 Offenburg Tel (+49) 781 205-0

Campus Gengenbach

Klosterstraße 14 77723 Gengenbach Tel (+49) 7803 9698-0

Hahn-Schickard Institut für Mikro- und Informationstechnik

Wilhelm-Schickard-Straße 10 78052 Villingen-Schwenningen Tel (+49) 7721 943-0

2.7 Special attractions for young people:

- Black Forest and mountain range: The beautiful scenery right next to Offenburg is a very popular travel destination for hiking, mountain biking and other outdoor activities.
- Europa Park Rust: This popular theme park attracts visitors from all over the world with roller coaster rides, a water park and many exciting activities and events.
- City of Strasbourg: A mere 20-minute train ride away from Offenburg, Strasbourg provides all the shopping amenities, cultural facilities and entertainments of a major city. Looking for a break from Offenburg? Need a specific exotic ingredient for that special dish? Fancy an authentic French coffee or dinner? With Strasbourg being so close, this is always an option. The cathedral is also world famous and a popular tourist destination.
- Historic cities: The region is full of history just two examples from our institutions
 - Gengenbach is the location of our second campus, located in a beautiful former Benedictine monastery. Gengenbach is visited by over one million of people a year and boasts a beautiful historic city centre and many bijou cafés and shops.
 - Villingen-Schwenningen is in the region, where rivers Neckar and Danube spring. Villingen as
 a former free imperial city, also enjoys one of the largest and most beautiful historic city
 centers in Germany.
- Visits to Heidelberg: Do you wish to travel the paths of Immanuel Kant or Max Weber? Visit one of
 the most famous and recognisable castle ruins in Europe? Enjoy the student night life of a city that
 is famous for its large student population? Heidelberg is always well worth a visit and easily
 reachable by train.



2.8 Costs of living (dorms, costs at university cafeteria etc.):

The average costs of living in Germany (including rent and health insurance) according to https://www.studying-in-germany.org/cost-of-living-in-germany/ are 934€ per month. Please note that personal living costs can vary greatly depending on personal preferences and circumstances.

Item	Cost
Average student dorm rent per month	not available
Average rent in private housing	400-500€/month
	for rooms in mixed shared flats
Semester contribution/fee	Currently 46€/semester for exchange students;
	state fees are waived for exchange students
	from our partner universities.
Public transportation	There is a range of public transportation tickets available, depending on choice. A lot of students prefer to travel by bike, as distances in Offenburg are not too far and there are many bicycle paths.
Mandatory health insurance	Currently 108€/month

The university's International Center supports in finding accommodation.

2.9 German courses

German courses are offered on all different levels by the university's Language Center.

3. Combined study and practice stays for engineers from developing countries (KOSPIE) – Tunisia:

3.1 Faculties participating in the exchange programme and degree courses offered (course language?):

In this first round, the Department of Electrical Engineering, Medical Engineering and Computer Science (EMI) is the main driver of the application. It includes the support of the largest three research institutes of Offenburg, and of Hahn-Schickard Institute.

Institute of Machine Learning and Analytics

- https://imla.hs-offenburg.de
- scientific advisor for KOSPIE: Prof. Dr. Stefan Hensel
- available topics for the intake 2024/25:
 - topic 1: Development and application of machine vision algorithms, especially with a focus on deep neural networks.
 - topic 2: Development and application of algorithms for highly automated driving, in particular machine learning in the area of environment perception, multimodal data fusion and navigation.

Institute of Reliable Embedded Systems and Communication Electronics

- https://ivesk.hs-offenburg.de
- scientific advisor for KOSPIE: Prof. Dr.-Ing. Axel Sikora



- available topics for the intake 2024/25:
 - o topic 1: 5.xG/6G developments (campus networks / real-time wireless TSN communications)
 - o topic 2: Security protocols for the Industrial Internet of Things (IIoT)

Institute of Sustainable Energy

- https://ines.hs-offenburg.de
- scientific advisor for KOSPIE: Prof. Dr. Michael Schmidt
- available topics for the intake 2024/25:
 - topic 1: Optimization Techniques for Leveraging Energy Flexibility in Residential Microgrids, including battery management
 - topic 2: Development of Optimization Techniques for Leveraging Energy Flexibility in Small and Medium Sized Industrial Enterprises

Hahn-Schickard Institute of Micro and Information Technology

- https://www.hahn-schickard.de
- scientific advisors for KOSPIE:
 - o Dr. Achim Bittner
 - o Dr. Stephan Knappmann
 - Dr. Heiko Trautner
 - Marcus Rüb
 - o Patrick Selle
- available topics for the intake 2024/25:
 - o topic 1: Development of piezoelectrical sensor for structure borne noise in tooling machines.
 - o topic 2: Design of a MEMS-sensors for the measurement of surface tension in washing liquor
 - o topic 3: tinyML for industrial processes
 - o topic 4: Al-based image processing for health

3.2 Transcripts of records can be issued in the following languages:

German, English

3.3 Students of the following degree courses may join the exchange programme:

Electrical Engineering
Electrical Energy Engineering
Microelectronics
Computer Engineering

3.4 Tuition waivers:

State fees (1500€/term) are waived for incoming exchange students. For internships, also no state fee will be charged according to ja, nach LHGebB §6, Absatz 1 (Studiensemester) und 2 (Praxissemester).

3.5 Near-by companies with which co-operations are withheld:

The region of Offenburg University, "Wirtschaftsregion Ortenau", is well-known for many innovative and world-leading companies such as Duravit AG (sanitary products), Europa-Park GmbH & Co Mack KG (theme park), Hansgrohe SE (sanitary products), Herrenknecht AG (tunnelling machinery), Hubert Burda Media (publishing), Leitwerk AG (IT and server solutions), Otto Nußbaum GmbH & Co. KG (equipment for garages and vehicle maintenance), Papierfabrik August Koehler AG (paper products),



Philipp Kirsch GmbH, Zehnder GmbH (heating and ventilation systems) and many more "hidden champions".

3.6 Established partnerships with the following Tunisian higher education institutions and faculties:

The Institute for Reliable Embedded Systems and Communication Electronics (ivESK)– the lead institution for this application – has very successfully looked after annual projects together with the École Nationale des Sciences de L'Informatique (ENSI) in the DAAD programme "German-Arab Short Measures with Partner Universities in Tunisia" since 2016. In particular, students from ENSI were also regularly at ivESK and produced their final theses (Projets Fin d'Etudes, PFE) there – guided by research and oriented towards applications – with consistently above-average results. Currently, three of these alumni are working as research assistants in the ivESK team.

In addition, the lead applicant, Prof. Dr. Sikora, has also accompanied numerous other activities at other universities in Tunisia (reviewer & examiner for PhD at Sup'Comm, exchange with ENIT, keynote lecture at IPEN2020 at the University of Sousse and others).

3.7 Interest in exchange with the following Tunisian higher education institutions (please specify faculties)

Further collaborations would be interesting for all stakeholders of the application. The faculties are identical with the programs mentioned at (3.3).

3.8 What language skills are required?

Good English language skills are requested – in line with the general DAAD requirements for the KOSPIE program.

4. Organisational specifics of KOSPIE intake 2024/2025:

4.1 Time frame

Students are welcome for the time between 1st March and 31st August 2025.

4.2 Number of seats

In the framework of KOSPIE internships, Offenburg University together with the research institutes will offer 8 seats.

4.4 University website for KOSPIE

https://ivesk.hs-offenburg.de/kospie

5. Responsible contact person:

5.1 Contact person at university-level and/or at faculty level

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5.2 Contact person student coordinator/advisor

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https://www.hs-offenburg.de/international/ueber-uns/team-int