# T.C. İSTANBUL KÜLTÜR UNIVERSITY FACULTY OF ENGINEERING

# DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

# STUDENT'S HANDBOOK FOR INDUSTRIAL TRAINING

An industry training (internship) is a learning experience, which allows students to apply theoretical knowledge gained in the classroom within the professional settings. The aim of the internship is to help students to develop their engineering skills and practice, to heighten students' awareness of the issues related to the engineering topics, working environment and duties, tasks and responsibilities in the professional practice.

# Pre-requisites and restrictions:

- 1. Students who are <u>at least in the 4th semester can do an industry training (internship)</u>
- 2. Students who are <u>at least in the 4th semester</u> are eligible to register EE5021 INDUSTRY TRAINING I and EE7021 IINDUSTRY TRAINING II in both fall and spring semesters,

# Work flow:

- 1. Read this handbook carefully and fulfil all the requirements (see section When and How to do the internship and when to register to the courses),
- 2. Read *"INTERNSHIP\_COMPANY\_EVALUATION\_FORM"* and *"INTERNSHIP\_COMMISSION\_EVALUATION\_FORM"* carefully and be aware that your internship will be evaluated by the institution and internship committee as stated in the forms,
- 3. Choose your institution for the internship (see section How to choose the institution),
- 4. Apply to the institution for the acceptance of the institution. If institution claims the certificate of mandatory internship, students should fill "INTERNSHIP\_MANDATORY\_INTERNSHIP\_LETTER", get the signature from academic advisor and submit the signed form to the institution.
- Apply to your academic advisor for the approval of your institution, dates of internship and the internship insurance via IKU Internship Management System (<u>https://legacy.iku.edu.tr/staj/pages/login.php</u>). (see section How to apply for the internship)

#### IMPORTANT

This step must be completed at least 2 weeks before the start of the internship

- 6. Do your internship, according to the rules written in this handbook (see section What are the expectations and goals of the internship),
- 7. Submit your report written by "INTERNSHIP\_REPORT\_TEMPLATE" and "INTERNSHIP\_COMPANY\_EVALUATION\_FORM". (see section How to write and submit the internship report)

#### IMPORTANT

Students should get Company Evaluation Form filled, signed and stamped by the responsible person in the department (must be Electrical, Electronics, Telecommunication, Computer, Control or Biomedical Engineer)

**8.** Your report will be evaluated by Internship Committee and grades will be entered by Internship Coordinator.

# When and How to do the internship and when to register to the courses

- 1. Students must complete minimum 40 work days internship program successfully before the graduation. Each industry training course corresponds to 20 work day internship program.
- Students are advised to complete first 20 work day internship in the summer break between 4<sup>th</sup> and 5<sup>th</sup> semester and then to register EE5021 INDUSTRY TRAINING I course in (the following) 5<sup>th</sup> semester.

Students are advised to complete second 20 work day internship in the summer break between 6<sup>th</sup> and 7<sup>th</sup> semester and then to register EE7021 INDUSTRY TRAINING II course in (the following) 7<sup>th</sup> semester.

- **3.** Students <u>must not</u> register to the course before completing the internship.
- 4. Students can do the internship during summer and winter breaks.
- 5. Students, who are at the 8<sup>th</sup> semester or more and register only one course (can be Graduation Project), can do the internship during fall or spring semesters.
- 6. Students, who register only one course in the summer school, can do internship during the summer school period.
- **7.** Students can do 40 days internship in one institution, but at least in two different departments. In this case, more than one report and evaluation form must be prepared and submitted to the internship committee.
- 8. Internship periods cannot be less than 10 days.
- **9.** Saturday can be counted as a full or half workday in the internship period only if it is indicated in the "INTERNSHIP\_COMPANY\_ACCEPTANCE\_LETTER".
- **10.** All national holidays and Sundays cannot be counted as a workday.
- **11.** Work-hours is dependent on the institution

# How to choose the institution

- **1.** It is student's responsibility to find the eligible institution for the internship.
- 2. The activities in the institution must be related to the electrical, electronics, telecommunication, computer, mechatronics, control and biomedical engineering. However, departments like human resources, purchasing or sales department, accounting, administrative affairs, and management department are not suitable for the internship.
- **3.** The institution must hire at least one full-time electrical, electronics, telecommunication, computer, mechatronics, control or biomedical engineer.
- **4.** Students can do the internship in the Departments of research and development and information system and technologies in the Universities.
- 5. Students can do the internship in institutions abroad.

If institution claims the certificate of mandatory internship, students should fill "INTERNSHIP\_MANDATORY\_INTERNSHIP\_LETTER", get the signature from academic advisor and submit the signed form to the institution

# How to apply for the internship

 Students must apply for the approval of the institution, dates of internship and the internship insurance by using IKU Internship Management System, <u>at least 2 weeks before</u> <u>the start of the internship</u>.

#### IKU Internship Management System:

- Student logs into <u>IKU Internship Management System</u> (<u>https://legacy.iku.edu.tr/staj/pages/login.php</u>) and fills the required fields, uploads the signed and stamped "INTERNSHIP\_COMPANY\_ACCEPTANCE\_LETTER" and submits it to the academic advisor.
- All questions related to the <u>IKU Internship Management System</u> should be addressed to the <u>IKU</u> <u>Information Systems and Technologies Department</u>.
- All questions related to the Internship insurance should be appressed to the <u>IKU Personnel</u> <u>Department.</u>
- 2. Internship applications will be approved by your academic advisor.
- **3.** It is a legal obligation to arrange insurance during internship. Internships without insurance are not evaluated. Insurance transactions are carried out by IKU Directorate of Personnel Department.
  - Students who already have insurance must also apply via Internship Management System.
  - > Students who do optional internship must also apply via Internship Management System.
  - Students who do the internship abroad must also apply via Internship Management System. Insurance process must be completed before travelling abroad
- **4.** Information filled in the Internship Management System and written in the "INTERNSHIP\_COMPANY\_ACCEPTANCE\_LETTER" must be the same.
- 5. Academic advisor carefully evaluates the student's semester, the institution (name, department and sector) and internship duration and approves or disapproves the application.

#### What academic advisor controls in the applications:

- ✓ Student's semester 4 or higher?
- ✓ Institution (department, sector) is acceptable?
- ✓ Institution's name is the same as in "INTERNSHIP\_COMPANY\_ACCEPTANCE\_LETTER"
- ✓ Internship dates and period are the same as in "INTERNSHIP\_COMPANY\_ACCEPTANCE\_LETTER"
- **6.** In case of a disapproval, Academic advisor informs the student by e-mail about the reason(s) of the reject. Students should act accordingly, correct the problems and apply again.

# What are the expectations and goals of the internship?

- 1. First 20 work day internship involves observing electrical-electronics engineering in practice, the student is expected to get hands-on with workshop activities (soldering, wiring, layout, data collection using basic measurement equipment, operating electrical engineering equipment, etc.), and exercise technical writing skills in reporting these activities clearly. Any active work involving design and test should also be explained in the report.
- 2. Second 20 work day internship involves observing electrical-electronics engineering in practice, the student is expected to get hands-on with tasks involving active participation such as hardware, electronics card design, manufacturing line work, calibration and quality testing, telecommunication, embedded systems and programming of these equipment in order to understand how these tasks fit in with the overall goals of the project, and exercise technical writing skills in reporting these activities clearly.

The observation should be active. While performing workshop type tasks, the context of how these contribute to the engineering project, and the goals of this engineering project should be understood.

# How to write and submit the internship report

- After completion of the internship, students must submit the internship report prepared by using *"INTERNSHIP\_REPORT\_TEMPLATE"* and *"INTERNSHIP\_COMPANY\_EVALUATION\_FORM"* to the Internship Committee.
- **2.** Students upload the report in the CATS course pages EE5021 or EE7021 by the time announced in CATS system in pdf format.
  - Internship report format "INTERNSHIP\_REPORT\_TEMPLATE" can be found in CATS platform.
  - Each page of internship report must be signed and stamped by the authorized person who is electrical, electronics, telecommunication, computer, mechatronics, control or biomedical engineer, then scanned and then uploaded.
  - > File name should be given as: *Student No\_Course code.pdf.*
  - Students should store the hard copies of the internship report for the future reference.
- **3.** Students must submit evaluation form in <u>closed and sealed envelope</u> to the Internship Committee.
  - "INTERNSHIP\_COMPANY\_EVALUATION\_FORM" can be found in CATS platform.
  - Form must be signed and stamped by the authorized person who is electrical, electronics, telecommunication, computer, mechatronics, control or biomedical engineer, then sealed in the envelope.
- **4.** Internship Committee evaluates the reports according to Internship Evaluation Form and grade as "Y" Pass or "Z" Fails. Internship Coordinator enters the grades to the ÖBYS system.

#### How is the evaluation?

Students will be graded as "Y" Pass if they:

- ✓ Submit internship report and company evaluation form on time,
- ✓ Get at least %50 success in both company evaluation and internship evaluation.

#### How to do internship abroad

- 1. Students can do internship in the institutions abroad. Above all rules and process are applied to the international institutions.
- 2. Students can do internship via ERASMUS mobility programs. Please consult international office (<u>https://uib.iku.edu.tr/en/exchange-programs/useful-documents</u>)

#### EE5021 INDUSTRY TRAINING I and EE7021 IINDUSTRY TRAINING II

Upon completion of both courses, students will be able to:

- demonstrate the ability to work independently and as part of a team (PÇ6a,b,c),
- employ effective communication in a workplace environment (PÇ7a),
- demonstrate effective technical report writing skills (PÇ7c),
- demonstrate the ability to give and receive clear and understandable instructions (PÇ7e,f),
- understand lifelong learning processes (PÇ8a),
- use and operate on the technical specifications and developments of a professional engineer (PÇ8b,c),
- recognize the duties, responsibilities and ethics of a professional engineer (PÇ9a,b),
- recognize the business life practices such as project management, risk management, and change management (PÇ10a),
- articulate their experience and skills to potential employers (PÇ10b),
- understand contemporary issues (PÇ11a)

old versions: Elektronik Müh. Staj Yönergesi (ver1 20/08/2007), INTERNSHIP\_STUDENT\_HANDBOOK (ver2 20/02/2020), (ver3 01/03/2020), (ver4 03/03/2021), ONLINE\_INTERNSHIP\_STUDENT\_HANDBOOK (ver4/Online 02/06/2021), INTERNSHIP\_STUDENT\_HANDBOOK (ver5 03/02/2022, ver6 20/03/2023)