ASIIN Seal & EUR-ACE® Label

Accreditation Report

Master's Degree Programs
Information Technology
Electronics Engineering

Provided by
International University (IU) – Vietnam National University Ho Chi Minh City

Version: 27 June 2025

Table of Content

A About the Accreditation Process

Name of the degree program (in original language)	(Official) English translation of the name	Labels applied for [1]	Previous accreditation (issuing agency, validity)	Involved Technical Committees (TC)[2]
Thạc sĩ Công nghệ Thông tin	Master of Information Technology	ASIIN, EUR-ACE® Label	/	02, 04
Thạc sĩ Kỹ thuật Điện tử	Master of Engineering in Electronics Engineering	ASIIN, EUR-ACE® Label	/	02
Date of the contract: 24.07.2023 **Submission of the final version of the self-assessment report:** 04.10.2024 **Date of the onsite visit:** 19/20.02.2025 **at:** Ho Chi Minh City, INTERNATIONAL UNIVERSITY (IU)				
Expert panel: Prof. Dr.-Ing. Sigrid Hafner, South Westphalia University of Applied Sciences Prof. Dr. Sascha Alda, Hochschule Bonn-Rhein-Sieg University of Applied Science Tran Cong, FPT Nguyen Luong Tien, student at University of DaNang				
Representative of the ASIIN headquarter: Paulina Petracenko				
Responsible decision-making committee: Accreditation Commission for Degree Programmes				
Criteria used:				

[1] ASIIN Seal for degree programmes; EUR-ACE® Label: European Label for Engineering Programmes

[2] TC: Technical Committee for the following subject areas: TC 02 - Electrical Engineering/Information Technology; TC 04 - Informatics/Computer Science.

European Standards and Guidelines as of May 15, 2015 ASIIN General Criteria, as of December 7, 2021 Subject-Specific Criteria Technical Committee 02 – Electrical Engineering/Information Technology as of September 23, 2022 Subject-Specific Criteria of Technical Committee 04 – Informatics/Computer Science as of March 29, 2018	

B Characteristics of the Degree Programmes

a) Name	Final degree (original/English translation)	b) Areas of Specialization	c) Corresponding level of the EQF[3]	d) Mode of Study	e) Double/Joint Degree	f) Duration	g) Credit points/unit	h) Intake rhythm & First time of offer
Ma Information Technology	Thạc sĩ/M. Eng.	- Research-Oriented Pathway - Coursework Oriented Pathway	7	Full time	/	5 Semester	118.4 ECTS Research Pathway, 110 ECTS Coursework Pathway	September 2022
Ma Electronics Engineering	Thạc sĩ/M. Eng.	- Research-Oriented Pathway - Industrial Oriented Pathway	7	Full time	/	4 Semester	111.9 ECTS Research Pathway, 104.2 ECTS Industrial Pathway	September 2010

For the Master's degree program Information Technology (MIT) the institution has presented the following profile on the website:

"The Master of Information Technology program aims to build a training program for learners with full capacity, knowledge, and skills to reach advanced domestic and international levels. After graduating from the program, learners can work, research, teach and lead expertise (both in English) in the field of IT in organizations, training, and research facilities at home and abroad.

The program encompasses two methods: research and coursework, to meet the diverse needs of learners, for both input and output of the program. The main goal of the program is to equip basic knowledge, improve and continuously update new technology, as well as necessary skills so that students can develop careers related to jobs in science and technology. IT, Computer Science and Data Science. Especially the ability to research, solve and develop IT projects in practice."

For the Master's degree program Electronics Engineering (MEE) the institution has presented the following profile on the website:

[3] EQF = The European Qualifications Framework for lifelong learning

“There are two main programs for the Master of Electronic Engineering: The Coursework program provides students with foundation and professional knowledge in electronic engineering, namely communications, microelectronics, signal processing biomedical sensors. The Research program provides students with solid foundation before entering the specialized research pathway, maximizing student abilities to reach the international standards in addition to joining in the research and preparing for postgraduate studies.

Disregarding of the pathway, all students can choose from five majors:

- Communications
- RF and Antenna
- Microelectronics
- Signal Processing
- Automation/Control.”

C Expert Report for the ASIIN Seal[4]

1. The Degree Programme: Concept, Content & Implementation

Criterion 1.1 Objectives and Learning Outcomes of a Degree Program (Intended Qualifications Profile)

Evidence:

- Self-Assessment Report
- Curricula for both degree programmes
- Module handbooks for both degree programmes
- Objective-module-matrix per programme
- Diploma Supplements
- Websites for both schools and study programmes
- Discussions during the audit

Preliminary assessment and analysis of the experts:
The experts refer to the respective ASIIN Subject-Specific Criteria (SSC) of the Technical Committees 2 (Electrical Engineering and Information Technology) and 4 (Computer Science), the objective-module-matrix for each degree programme, the matching learning objectives and the modules as a basis for judging whether the intended learning outcomes of the Master's degree programs correspond with the competences as outlined by the SSC. The descriptions of the qualification objectives are comprehensive and include the achieved competencies and possible career opportunities of the graduates.

The International University – Viet Nam National University Ho Chi Minh City (HCMIU) has described program objectives (POs) and intended learning outcomes (ILOs) for each of the two degree programs under review. While the POs are developed based on the vision and mission of the university as well as the School of Computer Science and Engineering and the School of Electrical Engineering, the ILOs describe in greater detail the competences

[4] This part of the report applies also for the assessment for the European subject-specific labels. After the conclusion of the procedure, the stated requirements and/or recommendations and the deadlines are equally valid for the ASIIN seal as well as for the sought subject-specific label.

the students should acquire in the specific study programme. Furthermore, there are regular revision processes in place that take into account feedback by external and internal stakeholders. A major revision including consultations of stakeholders takes place every five years for the two degree programmes, a minor revision takes place on an annual basis.

The experts note that the development of ILOs of the study programs involves both internal and external stakeholders so that the curricula can be adapted and modified according to the needs of the industry and the graduates on a regular basis. For example, HCMIU regularly conducts surveys, through which the different stakeholders get the chance to assess the programs and their main objectives. Based on this feedback HCMIU adapts the degree programs if necessary. Internal stakeholders include all of HCMIU members (students, teaching staff, and non-academic employees), while the external stakeholders include the industry, alumni, the government, and society.

Graduates of the Master's program Information Technology (IT) should be able to "analyze a complex problem and apply principles of computing and related fields to identify solutions and to design, implement and evaluate IT solutions to meet computational requirements within the project context, and apply information technology theory and software development fundamentals to create IT solutions. They also should be able to communicate effectively in professional working environments, recognize roles and responsibilities, and make informed judgments in IT practices based on legal and ethical principles. Furthermore, they should function effectively as a member or leader of a team engaged in appropriate project activities." Graduates should be able to work, research, teach and lead expertise (both in English) in the field of IT in organizations, training, and research facilities in Vietnam and abroad.

The Master's program Electronics Engineering aims to equip students with a comprehensive foundation in scientific and mathematical principles, enabling them to creatively solve complex engineering problems. Students should have advanced knowledge in key areas such as IC design, embedded systems, communications, signal processing, automation, control, and robotics. In addition, students should have acquired essential skills, including the ability to update knowledge, conduct research and communicate effectively while working in multidisciplinary teams. Graduates should be prepared to adapt to the evolving technological landscape, to engage in international collaboration, and to use English language skills for global employment opportunities. In addition, the program offers the option to specialize in one of the following areas: telecommunication systems, RF circuits and antennas, microelectronics, signal processing, and control engineering and automation.

Graduates of the Electronics Engineering program should have diverse employment opportunities in both domestic and international markets. They should be well equipped to work in companies specialising in IC design, consumer electronics, information technology and

automation. They can also pursue careers in communications and networking companies, including mobile networks, airlines and transport companies. The program also prepares graduates for roles in the entertainment and advertising industries, where they can apply their technical expertise creatively. In addition, graduates should have the entrepreneurial skills needed to establish start-up companies and bring innovative electrical and communications products to market.

Both master's programs offer two pathways: the research-oriented pathway and the industry- or coursework-oriented pathway. Students on the first pathway will acquire in-depth research skills to prepare them to work in research institutions in Vietnam and abroad. The coursework-oriented pathway is designed for students who wish to pursue a career in industry. It focuses on the application of theoretical knowledge and the implementation of projects.

The experts review the objectives and learning outcomes of the programs and find that they are described in a comprehensible and competence-oriented way. They also note that the objectives and learning outcomes are anchored and published in a transparent manner and are thus available to students, teachers and interested third parties. However, the experts note that in the MIT program the intended learning outcomes for the Research Pathway and the Industrial Pathway are almost identical and therefore recommend that they be made more distinct in order to highlight the individual focus of each pathway.

Overall, the experts find that the intended learning outcomes of both programs correspond to EQF level 7 and are in line with the ASIIN Subject Specific Criteria (SSC) of the Technical Committees 02 and 04. They consider that, with the intended competence profile, graduates will be able to take up a professional activity according to their level of qualification.

Since HCMIU also applied for the EUR-ACE® label for both programmes, the experts check whether the learning outcomes are aligned with the EUR-ACE® Framework Standards and Guidelines (EAFSG) for engineering programmes. The EUR-ACE® Framework Standards and Guidelines requires that engineering programs cover the following seven competence areas: Knowledge and Understanding, Engineering Analysis, Engineering Design, Investigations, Engineering Practice, Making Judgements Communication and Team-working, and Lifelong Learning. The self-assessment report and the module descriptions illustrate that the degree programs under review cover all the required competence areas such as engineering analysis, design, and practice as well as communication and team-working skills. The experts are convinced that the mentioned competences are conveyed in the respective courses. They conclude that the intended learning outcomes of all programs are aligned with the EUR-ACE® Framework Standards and Guidelines (EAFSG).

Criterion 1.2 Name of the Degree Programme

Evidence:

- Self-Assessment Report
- Diploma Supplements

Preliminary assessment and analysis of the experts:
The experts confirm that the English translation and the original Vietnamese names of both degree programs under review correspond with the intended aims and learning outcomes as well as the main course language (Vietnamese).

Criterion 1.3 Curriculum

Evidence:

- Self-Assessment Report
- Curricula for both degree programmes
- Module handbooks for both degree programmes
- Student handbooks
- Websites for both schools and study programmes
- Discussions during the audit

Preliminary assessment and analysis of the experts:
Structure & Content

The MIT degree program is managed by the School of School of Computer Science and Engineering while the MEE degree program is managed by the and the School of Electrical Engineering.

The MIT program has a duration of 5 semesters, including one summer semester, and comprises 118.4 ECTS in the Research Pathway and 110 ECTS in the Coursework Pathway. The MEE program lasts 4 semesters and comprises 111.9 ECTS in the research pathway and 104.2 ECTS in the industrial pathway. Both programs are taught exclusively in English.

At HCMIU, an academic year is divided into two regular semesters and a summer semester. The summer semester is usually reserved for internships or additional courses, as in the MIT programme. The summer semester lasts eight weeks (seven weeks for classes and one week for final exams). A regular semester lasts 20 weeks (15 weeks for classes, two weeks for midterms, two weeks for final exams and one week for reserve).

In the MIT programme, the first year of the curriculum is identical for the research and coursework pathways. In the first two semesters, students take compulsory technical

courses in information technology. In the third/summer semester, all students take an elective and two courses in research methodology and professional ethics. In the second academic year, students divide into their respective pathways. Students on the research pathway focus their second year largely on researching and completing their final thesis, in addition to completing a research project. Students on the coursework pathway instead take technical electives (5 in total) in their second year. They also finish their studies in the fifth semester with a thesis.

In the MEE programme, the first year of the curriculum is also identical for both pathways. Here students complete next to three compulsory courses, seven electives. In the second year, students of the research pathway carry out a research project and a thesis (each 15 credits). Students of the industrial pathway, complete in the second year four electives, an internship and a graduation project (9 credits).

In the self-assessment report, HCMIU explains that only the MEE program includes an internship, as many of the MIT students are already employed during the master program and therefore do not need further practical training as part of their studies. The internship in MEE consists of nine credits and lasts 127.5 hours (between two and three months, depending on timely distribution) and is to be completed in the industry. Each student is supervised by an advisor from the company. At the end of the internship, students submit a report and give a presentation. The internship committee, which consists of representatives from the School of Electrical Engineering and the company in which the student completed the internship, evaluate the student's performance.

The experts review the two curricula and find that the two programs under review are well structured and designed in a way, which allows the achievement of the respective program learning outcomes. Overall, they believe that the two programs provide a high level of education in the respective technical field at EQF level 7 and are in line with the SSC of the Technical Committees Electrical Engineering/Information Technology and Computer Science. They also confirm that two curricula are designed to provide students with the engineering competences required by the EUR-ACE® Framework Standards and Guidelines (EAFSG).

Nevertheless, the experts see room for improvement in both of the programmes. On the one hand, they appreciate the high number of electives. However, given the small number of students enrolled in the two programs (on average 5 students in MIT and 7 students in MEE), they wonder how it is feasible to actually offer and carry out a wide range of electives to these small cohorts. The program coordinators explain the process, which has been adapted to the small cohorts: Before each semester, they send the list of electives to the students so they can indicate their preferences. Based on this information, the Program

Coordinators select the electives with the highest number of votes and teach those. As a result, not all electives offered to students are actually carried out. Instead, in most cases, all students in the cohort take the same electives. Nonetheless, it is possible for a course to be run with fewer than five students, but in this case, formal approval must be obtained from the Rector. This option exists to ensure that all students maintain their technical focus. The experts understand the limited opportunities due to the small cohorts. However, they recommend that it should be considered how students can actually take the elective courses offered to them, so that students can make use of the range of electives. In this context, the experts also recommend using synergies between related schools and offering similar courses together to students from different programs (e.g. through cross-listing). They refer, for example, to the elective “Advanced Machine Learning and Artificial Intelligence” in the MEE programme, which could be offered jointly to students of both programmes. Offering the same electives to students of both programs would increase the chances of reaching the minimum class size of five students and thus increase the chances of students actually taking the electives.

In discussions with industry representatives, the experts learn that industry is very satisfied with the performance of students and graduates in companies, especially with their research and problem-solving skills. They also note that students have basic soft skills, such as the ability to work collaboratively, but given the high significance of soft skills in the industry and in the workplace, they would like to see a stronger training of students in the Master's programme. In particular, they suggest improving leadership and communication skills. The experts fully understand the wishes of the company representatives and recommend HCMIU to introduce a course on so-called “future soft skills”, which should include, for example, leadership skills, communication skills, critical thinking, strategic thinking and, in general, competencies that increase the employability of graduates.

The industry partners would also like to see the integration of AI ethics and machine learning into the MIT programme. The experts agree that these two topics are highly relevant in the field of information technology and therefore recommend that the content of these two topics be integrated into the MIT curriculum. With regard to AI ethics, they suggest that it should be integrated into the existing AI module rather than taught separately, so that AI training is directly linked to reflection on ethics. Regarding the content of machine learning, as mentioned above, they suggest that a course on this topic be offered through cross-listing, i.e. since there is already a course on machine learning in MEE, they recommend taking advantage of the synergies and offering this course to students of both programs together. In addition to the focus on open-source software, the experts also recommend the introduction of modern Cloud-based platforms (such as PaaS and SaaS) in the curriculum of the MIT program. This additional focus would bring even more value and

appreciation to the given curriculum, since skills in AWS, Azure, GCP (for PaaS) or Netlify, Firebase (for SaaS) are in high demand in the industry.

Periodic Curriculum Review

The curricula are reviewed and updated annually. The review takes into account feedback from both internal (students and faculty) and external stakeholders (alumni, industry partners, etc.) through survey results and direct feedback. Any changes to the curricula are reported by the Dean and Secretary of the School to the Office of Graduate Affairs. The experts are pleased that the two programs are regularly reviewed to ensure that the curricula meet modern standards, industry requirements and student feedback.

International mobility

As an international university, HCMIU declares to offer its students various opportunities to participate in student mobility and to prepare them for a career abroad or in a globally operating company. To this end, all courses are taught in English and most of the teaching staff have overseas study and/or teaching experience. The Centre for International Mobility (CIM) in the Office of External and Public Relations is the central point of contact for incoming and outgoing students. They process applications from international students and help local students prepare for student mobility.

Students who wish to study abroad can receive scholarships and financial support if they meet certain requirements in terms of academic merit and social contribution. In addition, the Centre for International Mobility at HCMIU collaborates with European universities on the Erasmus+ program to obtain further financial support for local students to participate in mobility programmes. Each year, HCMIU will spend about USD 1.5 million to provide scholarships to students who score high (5%) in the entrance exams, both for programs at HCMIU and for international partner universities. In addition, top students can apply directly to the Vietnamese government for scholarships to study abroad.

According to the university's website, both the School of Electrical Engineering and the School of Computer Science have a number of exchange partner institutions, including in the US, UK and Australia. For credits to be recognised, a learning agreement must be in place between the two partner institutions. Credits earned abroad will be recognised at HCMIU if the course is equivalent (70% or more) to a course at HCMIU in terms of content, teaching pedagogy, objectives and student workload.

Despite the international orientation and vision of HCMIU, the experts learn that since the start of the two Masters programs (MIT in 2022 and MEE in 2010), none of the students have participated in student mobility abroad. The representatives of the top management explain that the main reason for this is the limited funding for the students. They are

continuously trying to increase the number of scholarships for students, but still it is only enough for a fraction of the number of students. Students confirm that the main challenge is the limited availability of funding. Other reasons include the need to work while studying and family responsibilities. Nevertheless, all students in the audit express their interest in student mobility and state that they would take the opportunity to go abroad if they were offered a scholarship. For these reasons, the experts recommend that international mobility be promoted by increasing cooperation with institutions abroad and by offering students more and better-endowed scholarships.

Criterion 1.4 Admission Requirements

Evidence:

- Self-Assessment Report
- University website
- Admission regulations
- Curricula for both degree programmes
- Discussions during the audit

Preliminary assessment and analysis of the experts:
Information on the admission process is available through handouts, brochures and the university's website, making it accessible to all interested parties. In general, enrolment in a Master's program at HCMIU is possible either through direct admission or through regular admission/application review.

Candidates for direct admission are those who have

- graduated or received a decision on the equivalence of a Bachelor degree (or higher) with a credit system of 150 credits or more, graduating on time.
- graduated or received a decision on the equivalence of a Bachelor degree with distinction, achieving a GPA of ≥ 8.0/10.
- graduated as the top student in the field from a regular undergraduate program.
- achieved first, second, or third place in national and international student Olympiad competitions.

Direct admission is limited to 20% of the total annual enrollment.

Candidates eligible for direct admission are individuals who

- have completed their Bachelor degree or possess a recognized decision on the equivalence of a Bachelor degree (or higher)

- are participating in the university's articulation program from undergraduate to Master level.
- Are international candidates who have completed an undergraduate degree in a relevant field and meet the language proficiency requirements.

All applicants must be able to demonstrate an English language level of at least B1 according to the Common European Framework of Reference for Languages (CEFR). Applicants who do not have the required level of English will be required to take an English language assessment test and course and then demonstrate the required level to be admitted. In addition to language requirements, there are subject-specific admission criteria. For both the MIT and MEE programmes, applicants must have completed a Bachelor degree with the same major as the applied Master program (i.e. IT or Electrical Engineering) or related fields. If a candidate has a degree in a related field, he/she will need to take additional technical courses before starting the program to ensure that he/she achieves the intended learning outcomes of the Master programme.

HCMIU also offers scholarships to students with outstanding achievements or from disadvantaged backgrounds. Scholarships are available in three categories and can cover between 25% and 100% of tuition fees.

In the MIT programme, a total of 26 students have applied in the last 3 years and 18 students have been accepted and enrolled in the Masters programme. The figures for the MEE program are similar. In the last three years, a total of 22 students were accepted and started the programme. The experts find this ratio and acceptance rate acceptable and can understand the small cohorts, since it is generally common in Vietnam that few people pursue a Master's degree, as most students enter the industry after their Bachelor's degree. However, given the capacity of 20 students per cohort in MIT and 12 in MEE, and the difficulties in offering all the electives, the experts are discussing with the top management their strategies to increase the number of students. The Rector's Office representatives explain that they are trying to offer more scholarships to students in order to attract more students and improve the conditions for studying at the Masters level. They also state that the industry is slowly increasing the requirements for applicants, as competition among applicants is increasing and companies prefer graduates with advanced skills. They therefore predict that the number of applicants for Master degrees will increase in the future. The experts are pleased with HCMIU's efforts to increase the size of the cohort and hope that more students will be interested in pursuing a master's degree at HCMIU in the future.

In summary, the experts find the terms of admission to be binding and transparent. They confirm that the admission requirements support the students in achieving the intended

learning outcomes and that regulations of qualifications achieved externally are clearly defined and are based on the principles of the Lisbon Convention.

Criterion 1.5 Workload and Credits

Evidence:

- Self-Assessment Report
- Curricula for both degree programmes
- Module handbooks for both degree programmes
- Academic Regulations
- Student handbooks
- Discussions during the audit

Preliminary assessment and analysis of the experts:
The MIT program has a duration of 5 semesters and comprises 63 Vietnamese credits or 118.4 ECTS in the Research Pathway and 110 ECTS in the Coursework Pathway. The MEE program lasts 4 semesters and comprises 60 Vietnamese credits or 111.9 ECTS in the research pathway and 104.2 ECTS in the industrial pathway. Together with the previous required Bachelor programme, a graduate of the Master program will have acquired at least 300 ECTS. The difference in the number of ECTS in the two tracks in spite of same Vietnamese credit number is due to the different kind conversion rate depending on the category of class.

Hence, in 2023, the International University board has issued Decision No. 54/TB-ĐHQT, which determined a certain conversion factor from ECTS to HCMIU credits depending on the type of the course and study method. For the conversion a factor of 1 ECTS to 27.5 hours (1 hour = 60 minutes) is taken. According to this, the conversion for the MIT and MEE programs is as follows:

- For theoretical courses:
    - 1 credit at International University = (15 periods x 50 minutes)/60 minutes + 30 hours of preparation = 42.5 hours = 1.54 ECTS
- For practical courses with experiments:
    - 1 credit at International University = (30 periods x 50 minutes)/60 minutes + 30 hours of personal preparation = 55 hours = 2 ECTS
- For the thesis/research project:

  - 1 credit at International University = 60 hours = 2.18 ECTS
- For the internship in MEE
  - 1 credit at International University = 12.5 contact hours + 30 hours of personal preparation= 42.5 hours = 1.54 ECTS

The experts note that the credit system at HCMIU is based on student workload and includes contact hours as well as self-study time. Credits are awarded for each module on the basis of its workload. They also note that the conversion of HCMIU credits to ECTS is consistent within each class category. However, they find a reference in the decision paper that practical courses can be awarded 1 credit on the basis of 55 hours *or* 1 credit on the basis of 67.5 hours. As the credit calculation needs to be consistent within each course category, the experts ask the HCMIU to ensure that all practical courses have the same credit calculation. Furthermore, the experts note inconsistencies in the number of ECTS credits stated in the documents. For example, in the self-assessment report, in a table directly comparing the structure of the two programs and the different pathways, it is stated that both pathways of the MIT program comprise 92.54 ECTS, while elsewhere it is stated that the MIT program comprises 118.4 ECTS in the research pathway and 110 ECTS in the coursework pathway. Therefore, HCMIU has to ensure that all documents display the same number of credits/ECTS.

With regard to the workload, the experts consider that the estimated workload is realistic and well-founded and that it is evenly distributed over the semesters, so that both programs can be completed in the standard period of study. Students confirm during the on-site visit that the workload is generally balanced and well reflected by the number of credits awarded. Feedback on the workload is collected in the course evaluation survey and adjustments are made if necessary.

The statistical data confirm that the study programs can be completed within the intended time. In terms of the MIT program, the data is partly difficult to assess since the program started only three years ago and the statistical data was collected six months before the site visit; hence, there is no concrete data on the average number of graduates. However, the experts can see from the present data that there are currently no significant delays in study progress or drop-outs. Similarly, in the MEE program, no dropout rate has been observed over the last five years. On average, students need between four and six semesters to complete their studies i.e. up to two semesters longer than intended. According to HCMIU, one reason for this slight delay is the pandemic and the struggles that came with it. In addition, students report in the audit that most of them work alongside their studies,

some even full-time. For this reason, some deliberately reduce the workload i.e. the number of courses per semester and thus extend their study time. The experts can understand the reasons for the delay in study time and generally do not consider the delay to be critical or indicative of structural problems in the study programs. In conclusion, they are convinced that generally the programs can be completed within the specified period of study.

Criterion 1.6 Didactic and Teaching Methodology

Evidence:

- Self-Assessment Report
- Student handbooks
- Module Handbooks for both degree programmes
- Curricula for both degree programmes
- Discussions during the audit

Preliminary assessment and analysis of the experts:
In its Self-Assessment Report, HCMIU records that appropriate didactical instruments and methods are implemented for the two Master degree programs under review. The variations in learning methods and tools are adjusted to the level of knowledge, skills, and competences set in each course.

Teaching in both programs consists of a combination of lectures, assignments, seminars, laboratories, projects and a capstone design. In the industrial pathway of the MEE programme, students also complete an industrial internship, as described in Chapter 1.3. Furthermore, students in both programs engage in group work, field trips, essays, projects, and presentations. Project-based learning is emphasised in the programs as it trains students in advanced competences in a setting that is realistic to the professional world. In the self-assessment report, HCMIU explains that the topics of the projects are selected in terms of their relevance to academia and industry.

In addition, students are encouraged to participate in scientific research projects with their teachers/supervisors. During the audit, the experts also learn that students on the research pathway are required to publish a Scopus paper before graduation. Students on the course or industry pathway are not expected to submit a paper, but are encouraged to do so by their teachers as well.

Teachers of both programs also offer online classes and use e-learning tools such as Blackboard. These tools allow lecturers to provide multimedia resources to support various online learning activities.

During the audit, the experts learn that many courses take place in the afternoon/evening and at weekends, as a high proportion of students work in addition to their studies. Students also report that the combination of work and study is intense but manageable. They also explain that they could not afford to complete the Master program if they were to stop working and concentrate solely on their studies. The experts understand the students' difficult situation and recommend that HCMIU consider more ways to support students who work while studying, for example by increasing the amount of online teaching. This would save students having to travel to the campus, which is located on the outskirts of the city, and make the work-study situation a little more manageable.

According to the self-assessment report, teachers have been trained in a five-step approach to measuring the program's ILOs. The approach includes informing about the ILOs, planning how to measure them, designing assessment methods and tools, conducting assessments and analysing the results. Based on this approach and student surveys, learning and teaching methods are regularly evaluated and adapted as necessary.

In summary, the experts can confirm that a variety of learning methods are used and that they are aligned with the intended learning outcomes. In the discussions with students, the experts learn that they are generally satisfied with the quality of teaching and learning in the programs under review. Gathering systematic feedback on the quality of teaching and learning can be achieved through the course evaluation survey conducted at the end of each semester, which serves as a valuable source of information.

Final assessment of the experts after the comment of the Higher Education Institution regarding criterion 1:

The experts take note of HCMIU’s comments on the report and the additional documentation provided. Regarding the inconsistent display of credits for MIT programme pathways, they review the documents and confirm that they now all show a consistent number of credits for each pathway. Therefore, this discrepancy has been adequately resolved.

With regard to the other recommendations, the experts acknowledge the university's commitment to taking up the proposals outlined in its statement and implementing the necessary measures. However, as these have not yet been implemented, the experts stand by their assessment outlined above.

Criterion fulfilled.

2. Exams: System, Concept and Organisation

Criterion 2 Exams: System, Concept and Organisation

Evidence:

- Self-Assessment Report
- Module handbooks for both degree programmes
- Exam regulations
- Thesis guidelines
- Sample of exams and theses
- Discussions during the audit

Preliminary assessment and analysis of the experts:
HCMIU presents the general rules for the examination and assessment systems applicable to the Master programs under review. Exams for both Master degree programs follow detailed policies by the University.

The most common form of assessment is the written examination. These typically include short answer questions, essays, problem-solving or case-based questions, and calculation problems. Some lecturers may also use multiple choice or true/false questions in exams or quizzes. Other forms of assessment include project work, presentations and seminar papers. The grade for laboratory work usually consists of laboratory skills, discussions, reports and oral examinations.

The final grade for a course is a combination of mid-term and final examinations and, depending on the course, other forms of assessment as mentioned above. Students' overall performance throughout the semester is formally monitored through course grades. Most courses also include practical sessions, allowing students to gain practical laboratory experience. The criteria for assessing student performance are explicitly and clearly stated in the assessment plan of each course syllabus.

Successfully passed exams are evaluated by lectures with a grading system based on a 100-point scale: Excellent (90 ≤ score ≤ 100), Very-good (80 ≤ score < 90), Good (70 ≤ score < 80), Average good (60 ≤ score < 70) and Fair (50 ≤ score < 60). To pass the course, a student must obtain at least 50 out of 100 points in the course's total score.

The students learn about mid-term and final exams via the University's academic calendar. The midterm and final exams occur in the 8^{th} to 9^{th} and 19^{th} to 20^{th} weeks of the semester, respectively. The examination forms are specified in the course descriptions available to the students via the University´s website and the online platform Edusoft.

Students who fail a course must attend it again in the next semester. The number of repetitions is unlimited. Students, who have passed a course but want to improve their score, may also take it again. Students with unsatisfactory academic performance will receive an academic warning. The academic warning is issued if a student violates one of the regulations, such as failing to complete more than 50 % of the registered credits for the semester, finishing the semester with an average grade of less than 35 (out of 100) or less than 40 in the last two consecutive semesters. Students will be suspended if receiving academic warnings more than twice. It is worth noticing that the student's academic advisor receives the notifications during the course as well. Consequently, help and support would be given to improve the student's academic performance.

If a student is unable to take a scheduled examination due to illness or other valid reasons, they are entitled to take a rescheduled examination within the same semester. In addition, HCMIU has regulations that provide systematic support for students with special needs. These also specify the compensation policy in relation to examinations.

Students in all programs are required to complete a final project or thesis at the end of their studies. The thesis can either focus on solving a practical problem or be theoretical in nature. In addition, the scope of the thesis varies depending on the program: In the research pathway of both programs, the thesis is worth 15 local credits or 32.7 ECTS. In the coursework pathway of the MIT program, the thesis is assigned 12 credits or 26 ECTS, and in the MEE program, the thesis project is assigned 9 credits or 19.6 ECTS. In the research pathway, the thesis lasts one year and starts in the first semester of the second year with the module "Research Project", in which students develop a research idea, define the research methodology and conduct a comprehensive review of all relevant knowledge. Students are then required to submit a research proposal, which is the first step in the assessment of the thesis. In the next semester, students must complete the actual project work by proving their theory, applying software simulation or hardware implementation (depending on the program and focus). For coursework or industry pathway students, the process is similar, but the scope is smaller and the development of the thesis topic is not split into a separate module. Throughout their thesis work, students are required to give a midway presentation, which is the second stage of assessment and tracks the progress of the thesis work. The third and final evaluation is the final defense, which takes place after the completion of the thesis report. Here, students must defend their work before the Thesis Committee, which consists of five members of the respective faculty. Before presenting to the Thesis Examination Committee, the student must receive a positive recommendation from the Thesis Advisor. HCMIU provides students with guidelines for the thesis proposal, final report format, and evaluation rubrics.

During the audit, the experts discuss the workload of the thesis with the program coordinators and the students, as the workload, especially in the research tracks, is remarkably

high at 32.7 ECTS. The program coordinators acknowledge the high workload, but explain that in their experience it has never been a problem because almost all students are already working, either as research assistants at HCMIU or as professionals in the industry. For this reason, they usually integrate the completion of the thesis into their usual work, as the topic of the thesis is usually derived from their work. The students confirm that the workload of the thesis is manageable and appreciate that they can combine the thesis with their usual work. Given this explanation, the experts consider the workload for the thesis to be acceptable.

During the on-site visit, the experts review a selection of exams and final projects. They confirm that these represent an adequate level of knowledge as required by EQF level 7 for the two Master's programs. The forms of examinations are aligned with the intended learning outcomes of the respective courses and the workload is distributed in an acceptable way. Students also report that they are satisfied with the overall examination system and that the assessments are fair and manageable.

The experts conclude that the criteria regarding the examinations system, concept, and organization are fulfilled and that the examinations are suitable to verify whether the intended learning outcomes are achieved or not.

Final assessment of the experts after the comment of the Higher Education Institution regarding criterion 2:

The experts stand by their assessment outlined above.

Criterion fulfilled.

3. Resources

Criterion 3.1 Staff and Development

Evidence:

- Self-Assessment Report
- Staff Handbook
- Study plan
- Module descriptions
- Discussions during the audit

Preliminary assessment and analysis of the experts:

HCMIU's teaching staff are categorised as professors, associate professors, and lecturers. The academic position of each staff member is based on research activities, publications, academic education, supervision of students, and other supporting activities. All full-time teaching staff members are expected to be involved in teaching/advising, research, and administrative services. However, the workload can be distributed differently between the three areas from teacher to teacher, depending on the academic position. For example, full professors spend more time on research activities and less on teaching than associate professors or lecturers.

According to the staff handbook, the School of Electrical Engineering, which is responsible for the MEE programme, has fourteen tenured faculty members, 80% of whom have been educated in foreign universities (examples include the USA, Germany and France). Eleven of them have Ph.D. degrees and three others have M.Sc. degrees. There is one associate professor among the fourteen tenured faculty members due to the fact that in Vietnam the title of associate professor is granted only by the government and not by the university.

The School of Computer Science and Engineering, which is responsible for the MIT programme, has fifteen tenured faculty members. Twelve of them have PhDs and three others have Masters degrees. As in MEE, the majority have degrees from universities abroad. In addition, there is only one associate professor among the fifteen tenured faculty members.

The Vietnamese government has set specific staff-student ratios for universities. The ideal ratio of staff to active students is 1:20. Currently, the ratio in MIT is 1:0.3 and 1:1.1 in MEE, which is due to the small student cohorts. The experts learn that a plan exists to develop the School's human resources to fulfil the academic requirements across the programmes, to take higher degrees, recruit more PhD holders in the future and invite more visiting lecturers. To implement a new staff recruitment plan, a formal letter of request must be submitted to the Human Resources Department, along with the proposed recruitment requirements. The Human Resources Department reviews the request and forwards it to the President of HCMIU for approval. Once approved, the vacancy will be advertised on HCMIU's website and other media platforms.

As part of the recruitment process at HCMIU, candidates must give a presentation on their research activities, and their teaching abilities are thoroughly assessed. To be eligible for teaching positions, applicants must hold a PhD degree, and it is frequently required to have post-doctoral research experience from a developed country with relevant expertise. Furthermore, they are required to be accredited in English by a professional committee, consisting of school and university leaders. In addition, candidates for a teaching staff position

must have practical scientific research experience demonstrated through scientific publication records.

The experts conclude that the composition, academic orientation and qualifications of the teaching staff, as set out in the staff handbooks, are suitable for the successful implementation and sustainability of the Master programs under review. However, they are surprised by the low number of professors in the two programs. According to the HCMIU, this is a common situation in many programs in Vietnam, as the appointment of a full professor is not the responsibility of the university alone. The academic position of each staff member is based on the regulations of the Vietnamese Ministry of Education, which sets certain standards for reaching the next level. In Vietnam, in order to be promoted to full professor, it is necessary to meet the standards set by the state and to be evaluated by the State Council of Professors. Meeting these standards is time-consuming and involves complex administrative procedures. Each year, only a few candidates in the field of engineering nationwide meet the standards and are awarded full professor certificates by the State Council of Professors. The experts understand these circumstances, but encourage both schools to continue their efforts to increase the number of full and associate professors in both programs.

Performance Review of Teaching Staff

HCMIU has established policies and evaluation methods to review staff performance on the three essential dimensions of teaching, research and service. These dimensions are measured on the basis of the previous year's parameters. Teaching performance parameters include workload (i.e., teaching preparation, giving lectures and supervising research, internship, and thesis projects, updating lectures and teaching methods, and assessing student learning outcomes) and student course feedback. Research performance considers the volume of research conducted, published papers, conferences attended, international cooperation activities on science and technology, and special tasks assigned by the university or the Dean of the school/department.

HCMIU conducts an annual Faculty Feedback Survey and Service-Quality Survey to gather feedback from its academic staff on their overall tasks and working conditions. Based on the results, it is observed by the experts that the academic staff of both Schools are generally satisfied with their teaching and public outreach tasks. Furthermore, the Service-Quality Survey results reveal that most academic staff is satisfied with the HCMIU's service quality, with an average of 95%. The feedback obtained from the survey is discussed by the Board of Presidents and the Heads of the units in a meeting to determine any corrective measures that may be required.

Didactic and Academic Development

HCMIU encourages the training of its academic staff to improve their didactic abilities and teaching methods. As stated in the Self-Assessment Report, academic staff in both Schools frequently undergo training in pedagogy, research, management, leadership, and quality assurance.

The Office of Human Resources Management is responsible for identifying staff members' training needs, proposing training plans, and carrying out training activities. Annually, the Board of Presidents holds meetings with heads of schools, departments, and offices to discuss the different units' training needs. The Office of Human Resource Management plans year-round training courses and workshops based on feedback from academic and non-academic units. Together with training activities, faculty members are encouraged to present their research papers at national and international conferences. The university recently issued a policy on short-term study and research abroad for the academic staff for 4-6 months through training courses and staff exchanges. Newly recruited lecturers are encouraged to take some teaching training courses. Faculty members are also trained occasionally to ensure they stay updated with the latest technologies and methodologies when it comes to teaching.

The experts discuss the various opportunities available for personal skill development with the teaching staff members. The teachers express their satisfaction with the internal qualification program and willingness to improve their didactic skills. Additionally, they can attend conferences, workshops, and seminars abroad. The experts also inquire about the promotion mechanisms in place at HCMIU. Through this dialogue, they learn that teachers are required to submit applications to the government, which employs a complex evaluation system. This system includes factors such as research publications and the supervision of students to determine a teacher's eligibility for promotion.

In conclusion, the experts consider that HCMIU provides sufficient opportunities and support for the didactic and academic development of its teaching staff. The experts are pleased to note that the teaching staff themselves are satisfied with the opportunities and are keen to make use of them.

Criterion 3.2 Student Support and Student Services

Evidence:

- Self-Assessment Report
- Discussions during the audit

Preliminary assessment and analysis of the experts:

HCMIU offers a range of support services for its student population. At the start of the first

semester, every student is assigned an academic advisor. Their academic advisor is the first port of call if a student needs advice or support on academic or personal issues. They also offer suggestions regarding relevant careers and skills development and help if there are problems with other teachers.

Before the start of the semester, the advisors help students plan for their next courses. Students register for courses through Edusoft, the online platform that allows advisors to look through all registered courses and make adjustments in alignment with the student's progress and abilities. The platform is also used by advisors to monitor the academic performance of their students. They arrange at least two meetings per semester to discuss issues affecting the student's academic achievement. During the discussion with the experts, the students confirm that they all have an academic advisor. In general, during their interaction with the experts, students highlight the approachability of teachers, which contributes to building a fruitful interaction.

In 2021, HCMIU established the Student Advisor Program to counsel students on issues regarding psychology, health, laws, and career planning. The Office of Student Services (OSS) manages this program by employing psychologists, medical doctors, lawyers, and educators as counsellors. The counselling is performed online, face-to-face, and via seminars.

OSS also helps students look for career orientations and job opportunities. Every year, OSS organises the Career Orientation Day to connect current students, alumni, and industry. In addition, specialised seminars invite alumni and people from the industry to present the needs of the labour market and share their working experiences. At the same time, industry talks are organised at the School level so that companies can introduce their line of business as well as learn more about the students on this occasion. Moreover, OSS has a separate website providing information on job opportunities, internships, enterprise programmes, seminars, networking events, and industrial field trips.

Finally, there are several student organisations at HCMIU; these include student-led clubs, which are divided into arts, sports, religious and other non-curricular activities.

In summary, the experts positively note the good and trustful relationship between the students and the staff members of HCMIU. There is enough resources available to provide individual assistance, advice and support for all students. The support system helps the students achieve the intended learning outcomes and complete their studies successfully. The students, in general, have access to sufficient information about the programs and are well-informed about the services available. The comprehensive support and advisory system is one of the strengths of HCMIU.

Criterion 3.3 Funds and equipment

Evidence:

- Self-Assessment Report
- Annual school budget plan
- List of lab equipment
- On-site visit of participating institutes and laboratories
- Discussions during the audit

Preliminary assessment and analysis of the experts:

HCMIU, the School of Electrical Engineering and the School of Computer Science and Engineering provide basic funding of the degree programs and the facilities. The school or academic staff can apply for further funding from the industry or organizations. On university level, the Office of Finance and Planning is responsible for planning the budget and assigning the funds to the schools and departments. The main source of income are the students' tuition fees and the funds provided by the Vietnamese government (mostly for salaries).

The Office of Facilities and Planning (OFP) and the Office of Procurement Services (OPS) are responsible for planning and maintaining the university's facilities. This includes evaluating, maintaining and improving the physical facilities and infrastructure of the university, such as teaching and learning facilities, laboratories, equipment, and tools, to meet the needs of education, research, and service. Students in The School of Computer Science and Engineering have access to ten laboratory rooms. These include among other things Data Science, Database System, Computing Network, Software Engineering, Operating System, Computer Service and the Auditorium. The School of Electrical Engineering has eight laboratories: a PLC and SCADA Lab, an Electronic Lab, a Telecommunication Lab, a Signal and Image Processing Lab, a Microprocessing and Embedded Systems Lab, a RF and Microwave Lab, a Robotic Lab, and a workshop lab. Both schools regularly carry out surveys regarding the equipment and laboratories.

Students at HCMIU also have access to the library, which has three branches. The IU Main Campus Library has a physical collection of over 30,000 items and various e-resources. The library also provides various services such as teaching support, study space, e-resource support and training workshops. Students can also access a wide range of databases.

During the on-site visit, the expert group visits various facilities including the library and different labs and classrooms in order to assess the quality of infrastructure and technical equipment. The experts find no bottlenecks due to missing equipment or infrastructure, and there is technical equipment for teaching students at the Master level is available in

sufficient numbers. In the discussion with the expert group, the students confirm that they are generally satisfied with the available equipment and the facilities including the library and classrooms. Furthermore, the teaching staff emphasise that from their point of view, the both degree programs receive sufficient funding for all teaching and learning activities.

In summary, the expert group judges the available funds, the technical equipment, and the infrastructure (laboratories, library, seminar rooms, etc.) to comply with the requirements for adequately sustaining the degree programmes.

Final assessment of the experts after the comment of the Higher Education Institution regarding criterion 3:

The experts stand by their assessment outlined above.

Criterion fulfilled.

4. Transparency and Documentation

Criterion 4.1 Module Descriptions

Evidence:

- Module handbooks for both degree programmes

Preliminary assessment and analysis of the experts:
The experts review the module descriptions for the programs and find that they provide adequate information about all relevant and required aspects: module identification code, respective content, learning outcomes, examinations, credit points and workload distribution, grading, person responsible for the module, teaching methods, admission requirements, recommended literature, and the date of last amendment made. The students confirm during the discussions that information about the courses is always available online and that details concerning examinations and contents are provided at the beginning of each course by the teaching staff.

Criterion 4.2 Diploma and Diploma Supplement

Evidence:

- Exemplary diploma certificate per study programme
- Exemplary diploma supplement per study programme
- Exemplary transcript of records per study programme

Preliminary assessment and analysis of the experts:
The experts confirm that students of the two programs receive a Diploma, a Diploma Supplement, and a Transcript of Records upon graduation. The Transcript of Records lists all the courses the graduate has taken, the credits earned, the grades and the cumulative GPA. The Diploma Supplement contains almost all the necessary information about the degree programmes, but lacks statistical data, as defined in the ECTS Users' Guide, which allows the reader to assess the individual grade. The statistical data provide an insight into the performance of other graduates in the same cohort, so that external parties can assess and compare the graduate's final grade. The experts request that this information also be included in the Diploma Supplement.

Criterion 4.3 Relevant Rules

Evidence:

- Self-Assessment Report
- All relevant regulations as published on the university's website

Preliminary assessment and analysis of the experts:
The experts confirm that the rights and duties of both HCMIU and the students are clearly defined and binding. All rules and regulations are published on the university's website and hence available to all stakeholders. In addition, the students receive all relevant course material at the beginning of each semester.

The experts appreciate that the English and Vietnamese websites of the programs include sufficient information about the intended learning outcomes, study plans, module descriptions and academic guidelines of each degree program and are made available to all relevant stakeholders.

Final assessment of the experts after the comment of the Higher Education Institution regarding criterion 4:

The experts note that HCMIU plans to work with the Office of University Affairs to compile the necessary statistical data and include it in the Diploma Supplement template, following the guidelines of the ECTS User Guide. The experts welcome HCMIU's response; however, as it has not yet been implemented, they maintain their assessment.

Criterion partly fulfilled.

5. Quality management: quality assessment and development

Criterion 5 Quality management: quality assessment and development

Evidence:

- Self-Assessment Report
- Student handbooks
- Quality Assurance Guidelines
- Surveys' reports
- Discussion during the on-site visit

Preliminary assessment and analysis of the experts:
As described in the Self-Assessment Report, the Office of Quality Assurance and Testing (QATO) manages quality assurance plans involving internal and external activities. QATO analyses data, writes reports, and offers suggestions to the Board of Presidents, the highest academic council at HCMIU. The Board of Presidents reviews and revises the suggestions from QATO and makes decisions on all HCMIU's academic concerns.

In their exchanges with the program coordinators, students and industry partners, the experts discuss HCMIU's quality management system. All parties confirm that the university implements a continuous process to enhance the programme's quality. As part of this process, HCMIU regularly reviews and improves the curricula. While the Office of Academic Affairs may approve minor changes, any significant curricula improvements require the approval of the Academic Committee and Board of Presidents in accordance with the university's regulations. Usually, the review is initiated based on the stakeholders' feedback obtained through the annual surveys from labour markets, alumni, graduates, teachers, and professionals.

Several mechanisms are in place to collect student feedback across the student lifecycle. These include an exit survey conducted before students' graduation to gather perceptions of the overall quality of programs and services. In addition, at the end of each semester, lecturers and courses are evaluated by students, faculty, and the university. Responding to the questionnaire is compulsory as students won't be able to access their accounts on Blackboard otherwise. QATO analyses the data, sends the results to the respective School and relevant lecturers and suggests improvements to the individual programmes.

As part of its commitment to staying up-to-date with the constantly evolving labour market and emerging technologies, HCMIU conducts annual employer surveys. These surveys seek

feedback from employers on how well HCMIU alumni are able to apply fundamental and professional skills in real-world settings. Employers are asked to evaluate the level of expectation they have for graduates with respect to each skill and to comment on how well these expectations are being met. QATO uses this feedback to modify or update the degree program and teaching methods in order to ensure that students receive the most current knowledge and are equipped to adapt to various working environments in their future careers.

QATO also conducts annual surveys to gather feedback from alumni at the time of graduation and one year after graduation. The surveys collect responses from alumni regarding their employment status and adaptability to the working environment. The collected data is analysed and transferred into reports, which can be used to improve the programs and enhance the training quality.

The experts learn from the students that they are generally satisfied with the quality management, that they can give feedback in various ways and that their suggestions are taken into account. The students also confirm that they are generally informed about the results of the surveys and that improvements are visible.

In summary, the experts are satisfied with the quality management system at HCMIU, especially with the continuous feedback loops and the involvement of important stakeholder groups such as students, alumni and representatives from the industry.

Final assessment of the experts after the comment of the Higher Education Institution regarding criterion 5:

The experts stand by their assessment outlined above.

Criterion fulfilled.

D Additional Documents

Before preparing their final assessment, the panel ask that the following missing or unclear information be provided together with the comment of the Higher Education Institution on the previous chapters of this report:

D 1. Information about the cooperation with the industry (incl. guest lectures, long-term collaboration, projects between teachers and industry, etc.)

E Comment of the Higher Education Institution (18.05.2025)

The following quotes the comment of the institution:

„**Criterion 1.3.**

Curriculum

Both Schools: Thank you for this valuable recommendation regarding the cooperation between two Schools to proffer joint content courses to students. We fully agree with the suggestion in order to enhance synergies between related Schools by offering joint elective courses across programs. As consequences, we will coordinate between the School of Computer Science and Engineering (SCSE) and the School of Electrical Engineering (SEE) to identify some overlapping elective courses, such as 1) 'Research Methodology', 2) 'Advanced Machine Learning and Artificial Intelligence', 3) 'Advanced Internet of Things' in MEE program and 1) 'Research Methodology', 2) 'Artificial Intelligence', 3) 'Internet of Things' in MIT program, that can be cross-listed and offered to students from both the MIT and MEE programs. This approach will be expected to increase the enrollment per elective and improve students' access to specialized topics. We aim to implement joint electives starting from the next academic year 2025-2026, and will update the course catalog accordingly. The syllabus is updated to agree on similar CLOs and contents in order that students from all programs can take the course to meet the learning outcomes, despite the small cohort size from both programmes. Besides the AI&ML-related course suggested, we also take the opportunity to build up some courses in common, namely IoT-related courses and Research Methodology.

MIT: We acknowledge the recommendation regarding the integration of modern Cloud-based platforms such as PaaS and SaaS into the MIT curriculum. In response, we have taken concrete steps to address this. Specifically, we have collaborated with industry experts, including certified lecturers from Cisco and AWS, to enhance the practical relevance of our courses. Cloud-based technologies have been incorporated into the Distributed Computing and Internet of Things course, where students are introduced to key platforms such as AWS and Cisco IoT. These platforms are not only used for instructional purposes but also made available for student research projects to ensure hands-on experience with industry-relevant tools. Furthermore, we have updated the syllabus of the Distributed Computing and Internet of Things courses to reflect these enhancements, aligning the course content more closely with current industry demands and ensuring our graduates are better prepared for the workforce.

International Mobility

Both Schools: We deeply appreciate the valuable feedback regarding the promotion of International Mobility within our Master's programs. Although the student participation in mobility programs has been limited so far, we have been actively encouraging and supporting students to engage in international academic activities.

MIT: At the SCSE, students are encouraged to join our research groups. When their papers are accepted at international conferences, we provide guidance and support for them to present their work abroad. These experiences not only foster international exposure but also enable students to build academic connections with researchers and professors worldwide. We also promote and support short-term overseas internships by assisting students in applying for relevant scholarship programs. These opportunities are particularly helpful in building global perspectives and research competencies in a condensed time frame. Furthermore, our faculty includes a strong foundation of international lecturers from various countries, as listed on our official website (https://it.hcmiu.edu.vn/faculty/), bringing diverse global insights directly into the classroom. To further strengthen internationalization, we are committed to expanding student exchange programs and increasing collaboration with overseas institutions. We recognize the need to enhance international mobility opportunities for our students. We will actively seek to expand partnerships with foreign universities, such as Nottingham University, West of England University, Deakin University, SUNY Binghamton University and Macquarie University. At the same time, we will work with the university leadership to explore options for increasing financial support and scholarships dedicated to student mobility. We aim to implement new agreements and funding opportunities to support student exchanges starting from the academic year 2025-2026. Recognizing that language proficiency is a key factor in successful international engagement, we also plan to enhance English-language support for our students. These combined efforts aim to better prepare our students for study and work in a globalized environment and to increase their access to international opportunities.

MEE: At SEE, the MEE students can join in various mobility plans in collaboration with foreign universities. For example, we are proceeding with the transfer students with University of South Norway (USN) in the joint-/co-supervising projects in the course entitled 'Research Project'. This aims to motivate international collaboration as well as to give students opportunities to research and study at international level. This course is eligible to extend for various collaborations from many institutions, universities nationwide and worldwide. Furthermore, we are attempting to proceed with a MOU signing with National University of Singapore (NUS) for further joining projects in the domain of electronics engineering.

Criterion 1.5 Workload and Credits

MIT: We sincerely thank the expert panel for pointing out the inconsistency regarding credit calculation and the number of ECTS credits. Upon review, we have identified that the discrepancy in ECTS values was due to a typographical error. We confirm that the correct total ECTS credits are as follows:

- Research-Oriented Pathway (ROP): 63 HCMIU credits / 118.4 ECTS
- Coursework-Oriented Pathway (COP): 63 HCMIU credits / 110.04 ECTS.

We have updated and corrected the relevant table on page 28 of the Self-Assessment Report to reflect these accurate values.

Criterion 4.2 Diploma and Diploma Supplement

Both Schools: Thank you for the recommendation to include the statistical information in the Diploma Supplement. We acknowledge the importance of including statistical data in the Diploma Supplement to allow external parties to assess and compare graduates' final grades. We will work with the Office of Graduate Affairs Office to compile and incorporate the required statistical data into the Diploma Supplement template, following the guidelines of the ECTS Users' Guide."

F Summary: Expert recommendations (21.05.2025)

Taking into account the additional information and the comments given by HCMIU the peers summarize their analysis and **final assessment** for the award of the seals as follows:

Degree Programme	ASIIN Seal	Maximum duration of accreditation	Subject-specific label	Maximum duration of accreditation
Ma Information Technology	With requirements for one year	30.09.2030	EUR-ACE®	30.09.2030
Ma Electronics Engineering	With requirements for one year	30.09.2030	EUR-ACE®	30.09.2030

Requirements
For all programs

A 1. (ASIIN 4.2) Ensure that the Diploma Supplement contains statistical data as set forth in the ECTS Users' Guide to allow readers to assess the individual mark.

Recommendations
For all programs

E 1. (ASIIN 1.3) It is recommended that students be given the opportunity to take part in the elective courses offered to them.

E 2. (ASIIN 1.3) It is recommended to introduce a course on "future soft skills" (such as leadership skills, communication skills, critical thinking, strategic thinking, employability, etc.).

E 3. (ASIIN 1.3) It is recommended that synergies between related schools are utilised and similar courses are offered jointly to students from different programs.

E 4. (ASIIN 1.3) It is recommended to foster international mobility by increasing cooperation with universities abroad and by providing more scholarships for students.

E 5. (ASIIN 1.6) It is recommended to increase online teaching to support students who work alongside their studies.

For the Ma Electrical Engineering program

E 6. (ASIIN 1.1) It is recommended that the intended learning outcomes for the Research Pathway (ROP) and the Industrial Pathway (IOP) be made more distinct in order to highlight the individual focus of each pathway.

For the Ma Information Technology program

E 7. (ASIIN 1.3) It is recommended that AI ethics and machine learning be included in the curriculum.

E 8. (ASIIN 1.3) It is recommended to introduce modern cloud based systems (such as PaaS and Saas) in the curriculum.

G Comment of the Technical Committees

Technical Committee 02 – Electrical Engineering/Information Technology (05.06.2025)

Assessment and analysis for the award of the ASIIN seal:

The TC discusses the procedure and agrees with the assessment of the experts.

Assessment and analysis for the award of the EUR-ACE® Label:

The Technical Committee deems that the intended learning outcomes of the degree programmes do comply with the engineering specific parts of Subject-Specific Criteria of the Technical Committee 02 – Electrical Engineering/Information Technology .

The Technical Committee 02 – Electrical Engineering/Information Technology recommends the award of the seals as follows:

Degree Programme	**ASIIN Seal**	**Accredited by German Engineers**	**Maximum duration of accreditation**	**Subject-specific label**	**Maximum duration of accreditation**
Ma Information Technology	With requirements for one year	With requirements for one year	30.09.2030	EUR-ACE®	30.09.2030
Ma Electronics Engineering	With requirements for one year	With requirements for one year	30.09.2030	EUR-ACE®	30.09.2030

Technical Committee 04 – Informatics/Computer Science (11.06.2025)

Assessment and analysis for the award of the ASIIN seal:

The TC discusses the procedure and is in favor of a minimal editorial change to recommendation E2. Otherwise, the TC follows the experts' assessment without any changes.

The Technical Committee 04 – Informatics/Computer Science recommends the award of the seals as follows:

Degree Programme	ASIIN Seal	Accredited by German Engineers	Maximum duration of accreditation	Subject-specific label	Maximum duration of accreditation
Ma Information Technology	With requirements for one year	With requirements for one year	30.09.2030	EUR-ACE®	30.09.2030

H Decision of the Accreditation Commission (27.06.2025)

Assessment and analysis for the award of the ASIIN seal:

The Commission discusses the procedure, follows the experts' assessment and adopts the changes suggested by TC 04. Additionally, they amend the wording of recommendations E3 and E8 to clarify and emphasize the underlying statement and reasoning behind the two recommendations.

Assessment and analysis for the award of the EUR-ACE® Label:

The Accreditation Commission deems that the intended learning outcomes of the degree programmes do comply with the engineering specific parts of Subject-Specific Criteria of the Technical Committee 02 – Electrical Engineering/Information Technology.

The Accreditation Commission decides to award the following seals:

Degree Programme	ASIIN Seal	Accredited by German Engineers	Maximum duration of accreditation	Subject-specific label	Maximum duration of accreditation
Ma Information Technology	With requirements for one year	With requirements for one year	30.09.2030	EUR-ACE®	Subject to the approval of the ENAEE Administrative Council
Ma Electronics Engineering	With requirements for one year	With requirements for one year	30.09.2030	EUR-ACE®	Subject to the approval of the ENAEE Administrative Council

Requirements

For all programs

A 1. (ASIIN 4.2) Ensure that the Diploma Supplement contains statistical data as set forth in the ECTS Users' Guide to allow readers to assess the individual mark.

Recommendations

For all programs

E 1. (ASIIN 1.3) It is recommended that students be given the opportunity to take part in the elective courses offered to them.

E 2. (ASIIN 1.3) It is recommended to introduce a course on soft skills (such as leadership skills, communication skills, critical thinking, strategic thinking, employability, etc.).

E 3. (ASIIN 1.3) It is recommended that synergies between related schools are utilised and similar courses are offered jointly in different programmes in order to increase the number of courses actually being offered especially in smaller programmes.

E 4. (ASIIN 1.3) It is recommended to foster international mobility by increasing cooperation with universities abroad and by providing more scholarships for students.

E 5. (ASIIN 1.6) It is recommended to increase online teaching to support students who work alongside their studies.

For the Ma Electrical Engineering program

E 6. (ASIIN 1.1) It is recommended that the intended learning outcomes for the Research Pathway (ROP) and the Industrial Pathway (IOP) be made more distinct in order to highlight the individual focus of each pathway.

For the Ma Information Technology program

E 7. (ASIIN 1.3) It is recommended that AI ethics and machine learning be included in the curriculum.

E 8. (ASIIN 1.3) It is recommended to introduce modern cloud based systems (in the field of PaaS and Saas) in the curriculum.

Appendix: Program Learning Outcomes and Curricula

According to the website, the following **objectives** and **learning outcomes (intended qualifications profile)** shall be achieved by the Master degree program Information Technology:

Intended Learning Outcomes grouped by Knowledge, Skills, and Attitudes

Intended Learning Outcomes	**Knowledge, Skills, and Attitudes**
ILO1. Analyze a complex problem and apply principles of computing and related fields to identify solutions.	Analyze, knowledge
ILO2. Design, implement and evaluate IT solutions to meet computational requirements within the project context.	Design, Implementation and Project Management knowledge
ILO3. Communicate effectively in professional working environments.	Self and Social communication skills
ILO4. Recognize roles and responsibilities and make informed judgments in IT practices based on legal and ethical principles.	Attitude and professional ethics
ILO5. Function effectively as a member or leader of a team engaged in appropriate project activities	Design, Implementation and Project Management knowledge
ILO6. Apply information technology theory and software development fundamentals to create IT solutions	Technological and methodological skills

The Alignment between the Program Objectives (POs) and Intended Learning Outcomes (ILOs)

Program Objectives for Research Pathway	**Program Objectives for Coursework Pathway**	**Intended Learning Outcomes**
PO1A. Ability to research and apply in-depth theoretical knowledge, improve, and apply it to the IT field.	PO1B. Ability to apply in-depth theoretical knowledge and apply it to solve practical problems in the IT field.	ILO1. Analyze a complex problem and apply princi-

		ples of computing and related fields to identify solutions. ILO6. Apply information technology theory and software development fundamentals to create IT solutions
PO2A. Able to carry out a specific scientific research topic. PO3A. Have methods and analytical ability in scientific research. PO4A. Ability to write scientific articles and submit articles to conferences and specialized journals and comply with ethics in research.	PO2B. Able to implement and develop IT-related projects. PO3B. Ability to proficiently use tools, software, open-source code and programming techniques, and project management skills related to IT. PO4B. Able to implement specific application projects related to IT and comply with professional ethics in the field of information technology.	ILO2. Design, implement and evaluate IT solutions to meet computational requirements within the project context. ILO6. Apply information technology theory and software development fundamentals to create IT solutions
PO5A. Able to teach and guide groups to conduct scientific research	PO5B. Able to teach and guide groups to practice in IT projects	ILO3. Communicate effectively in professional working environments. ILO4. Recognize roles and responsibilities and make informed judgments in IT practices ILO5. Function effectively as a member or leader of a team engaged in appropriate project activities based on legal and ethical principles.

The following **curriculum** is presented:

Curriculum for the Research-Oriented Pathway (ROP) starting from the academic year 2023 and onwards

First Year							
Semester 1 (Autumn Semester)		**Credits**	**ECTS**	**Semester 2 (Spring Semester)**		**Credits**	**ECTS**
IT515	Advanced Data Structures and Algorithms	4	6.64	IT516	Advanced Computer Graphics	4	6.64
IT502	Advanced Database	4	6.64	IT517	Cryptography	4	6.64
IT545	Algorithm Optimization	4	6.64	IT504	Artificial Intelligence	4	6.64
Total		**12**	**19.92**	**Total**		**12**	**19.92**
Semester 3 (Summer Semester)		**Credits**	**ECTS**				
PE501	Research Methodology	2	3.09				
PE502	Professional Ethics	2	3.09				
	Elective 1	4	6.64				
Total		**8**	**12.82**				
Second Year							

Semester 1 (Autumn Semester)		Credits	ECTS	Semester 2 (Spring Semester)		Credits	ECTS
IT551	Special Study 1	4	8.73	PE505	Philosophy	3	4.64
IT552	Special Study 2	4	8.73	IT564	Thesis	15	32.73
IT560	Research Project	5	10.91				
Total		**13**	**28.37**	**Total**		**18**	**37.37**

Total: 63 credits/118.4 ECTS

Curriculum for the Coursework-Oriented Pathway (COP) starting from the academic year 2023 and onwards

First Year							
Semester 1 (Autumn Semester)		**Credits**	**ECTS**	**Semester 2 (Spring Semester)**		**Credits**	**ECTS**
IT515	Advanced Data Structures and Algorithms	4	6.64	IT516	Advanced Computer Graphics	4	6.64
IT502	Advanced Database	4	6.64	IT517	Cryptography	4	6.64
IT545	Algorithm Optimization	4	6.64	IT504	Artificial Intelligence	4	6.64
Total		**12**	**19.92**	**Total**		**12**	**19.92**
Semester 3 (Summer Semester)		**Credits**	**ECTS**				
PE501	Research Methodology	2	3.09				
PE502	Professional Ethics	2	3.09				
IT5xx	Elective 1	4	6.64				
Total		**8**	**12.82**				
Second Year							
Semester 1 (Autumn Semester)		**Credits**	**ECTS**	**Semester 2 (Spring Semester)**		**Credits**	**ECTS**
IT5xx	Elective 2	4	6.64	PE505	Philosophy	3	4.64
IT5xx	Elective 3	4	6.64	IT5xx	Elective 5	4	6.64

IT5xx	Elective 4	4	6.64	IT564	Thesis	12	26.18
Total		12	19.92	Total		19	37.37

Total: 63 credits/109.95 ECTS

According to website, the following **objectives** and **learning outcomes (intended qualifications profile)** shall be achieved by the Master degree program Electronics Engineering:

"Education goals

1. **Knowledge**
    - Knowledge of how to implement scientific and mathematical foundation creatively in solving engineering problems.
    - Advanced and solid knowledge in: IC Design, Embedded Systems, Communications, Signal Processing, Automation and Control, and Robotics.
    - Knowledge of how to implement creatively and process effectively various design, build, and operation to solve complex engineering problems.
    - Knowledge of how to design and practice experiments with systems and equipment of varied degrees of complexity, and the ability to analyze and evaluate obtained results.
2. **Skills**
    - Ability to update new knowledge and publish research results.
    - Ability to creatively formulate and solve technical problems in one's area of expertise, to work effectively in multidisciplinary research.
    - Ability to identify, locate, collect, and evaluate the required data through the design and conduct of observation, modeling, simulation, or testing processes.
    - Communicate effectively and work with social and community responsibility.
3. **Professional qualifications and competencies**
    - Quickly adapting to the continuous development of science and technology in the world.

- Ability to link the program with domestic and foreign schools.
- Training advanced and solid knowledge on: IC Design, Embedded Systems, Communication, Signal Processing, Automation, Control and Robotics.
- Teaching and learning in English helps students have a good foreign language foundation to communicate internationally and learn global information.

4. Research orientation

The Master's program is designed with the following research orientations:

- Telecommunication Systems
- RF Circuits and Antenna
- Microelectronics
- Signal Processing
- Control Engineering and Automation."

The following **curriculum** is presented:

Curriculum of the Research-Oriented Pathway (ROP) from the academic year 2023 and onwards

First Year							
Semester 1		Credits	ECTS	Semester 2		Credits	ECTS
PE505	Philosophy	3	4.64	EE5xx	Elective course	3	4.64
EE500	Research Methodology	2	3.10	EE5xx	Elective course	3	4.64
EE505	Linear System and Random Process	4	6.18	EE5xx	Elective course	3	4.64
EE5xx	Elective course	3	4.64	EE5xx	Elective course	3	4.64
EE5xx	Elective course	3	4.64	EE5xx	Elective course	3	4.64
Total		15	23.2	Total		15	23.2
Second Year							

Semester 1		Credits	ECTS	Semester 2		Credits	ECTS
EE614	Research Project	15	32.73	EE605	Thesis	15	32.73
Total		**15**	**32.73**	**Total**		**15**	**32.73**

Total: 60 credits/111.86 ECTS

Curriculum of the Industrial-Oriented Pathway (IOP) from the academic year 2023 and onwards

First Year							
Semester 1		**Credit**	**ECTS**	**Semester 2**		**Credit**	**ECTS**
PE505	Philosophy	3	4.64	EE5xx	Elective course	3	4.64
EE500	Research Methodology	2	3.10	EE5xx	Elective course	3	4.64
EE505	Linear System and Random Process	4	6.18	EE5xx	Elective course	3	4.64
EE5xx	Elective course	3	4.64	EE5xx	Elective course	3	4.64
EE5xx	Elective course	3	4.64	EE5xx	Elective course	3	4.64
Total		**15**	**23.2**	**Total**		**15**	**23.2**
Second Year							
Semester 1		**Credit**	**ECTS**	**Semester 2**		**Credit**	**ECTS**
EE5xx	Elective course	3	4.64	EE5xx	Elective course	3	4.64
EE5xx	Elective course	3	4.64	EE5xx	Elective course	3	4.64
EE611	Internship	9	19.64	EE612	Graduation Project	9	19.64
Total		**15**	**28.92**	**Total**		**15**	**28.92**

Total: 60 credits/104.24 ECTS

List of elective courses (from 2023)

ID	*Course Name*	*Credits*	*ECTS*
EE565	Digital and Embedded System Design	3	4.64