ASIIN Seal, EUR-ACE® Label & Euro-Inf® Label

Accreditation Report
Based on an Evaluation Report

Bachelor's Degree Programme
Electrical Engineering and Automation
Software Engineering

Provided by
Jinzhong College of Information (China)

Version: 28.06.2024

Table of Content

Preliminary Note

The following paragraphs are based on the *evaluation report* concerning the named degree programmes dated from July 14, 2022, in particular the results of the peers' analysis and assessment summarized in section D of the evaluation report. Thus, the evaluation report is the main reference document and substantial base of the accreditation procedure. This report is drafted entirely along the lines of the ASIIN General Criteria and the Subject-Specific Criteria of the relevant Technical Committees 02 – Electrical/Information Technology as well as 04 – Informatics/Computer Science. Hence, ESG 1.1 to 1.10 are fully covered in the combined evaluation and accreditation procedure, as in the respective conclusions of the peers and the Technical Committees (sec. E and F) and in the final decision of the Accreditation Commission (sec. G).

Since the evaluation procedure is geared towards a potentially ensuing accreditation from the start, the results of the evaluation are summarized accordingly. Thus, "critical concerns", "major recommendations" and "minor recommendations" in the evaluation procedure are considered equivalent to "conditions" in case of a "suspension of the procedure", "requirements" in case of an "accreditation with reservation", and "recommendations" in case of an "accreditation with or without reservation. Consequently, it is ensured that these categories could be easily converted into a proposal for the accreditation of the programmes. Consequently, the accreditation procedure is conducted in a shortened manner, in particularly waiving the regular audit visit of the peer group. A statement of the HEI to the evaluation report, though, is a regular part of that procedure and, as a rule, is regarded in the peers' recommended resolution (see sec. D and E).

A About the Accreditation Process

Name of the degree programme (in original language)	(Official) English translation of the name	Labels applied for [1]	Previous accreditation (issuing agency, validity)	Involved Technical Committees (TC)[2]
电气工程及其自动化	Electrical Engineering and Automation (EEA)	ASIIN, EUR-ACE®, Euro-Inf® Label	--	02
软件工程	Software Engineering (SE)	ASIIN, Euro-Inf® Label	--	04
Date of the contract: 12.10.2022 **Date of the onsite visit of the preceding evaluation procedure:** 11.-13.05.2022 + 14.06.2022 (Remote Audit) **Date of the peer team's statement concerning the accreditation**: 14.11.2022				
Peer panel: Prof. Dr. Peter Nauth, Frankfurt University of Applied Sciences Prof. Dr. Rainer Oechsle, University of Applied Sciences Trier Dr. Alfred Schulte, Robert Bosch GmbH Xibin Zhou, Bachelor student at Tongji University				
Representative of the ASIIN headquarter: Dr. Siegfried Hermes				

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

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

Responsible decision-making committee: Accreditation Commission for Degree Programmes
Criteria used: European Standards and Guidelines as of May 15, 2015 ASIIN General Criteria as of December 07, 2021 Subject-Specific Criteria of Technical Committee 02 – Electrical Engineering/Information Technology as of December 9, 2011 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
Electrical Engineering and Automation	Bachelor of Engineering	--	6	Full time	n/a	8 semesters	240 ECTS	Fall semester
Software Engineering	Bachelor of Engineering	--	6	Full time	n/a	8 semesters	240 ECTS	Fall semester

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

C Statement of the Higher Education Institution (21.10.2022)

After the completion of the foregoing evaluation, the institution provided a statement on the issues raised by the peer team as well as the following additional documents:

- Statistical data about learning progress and study success in the study programmes (Annex 1 to the statement)
- Regulations for the Management of Graduation Internship (Annex 2 to the statement)
- Regulations for the Management of Internships and Practical Training (Annex 3 to the statement)

D Final assessment of the peers based on the evaluation report and the statement of the HEI (14.11.2022)

Curriculum (ASIIN 1.3)

In the evaluation report, the peers suggested that core courses should be aiming at a more demanding theoretical depth to better achieve the intended learning outcomes. They appreciate the reported discussions at JCI with external experts from Chinese and German universities in August 2022 apparently geared towards a revision of the curricula in the said direction. As a result, the theoretical depth of some courses is said to be strengthened. Yet, no revised curricula nor any adapted course specifications have been provided giving the peers any clue to see whether the agreed solutions do already fit with the expectations. Hence, the peers still deem a respective requirement necessary (see below, sec. E, requirement 1).

Staff resources and staff development, including lab technicians (ASIIN 3.1)

Concerning its critical comments on the comparatively low number of PhD holders within the ranks of the teaching staff of the said programmes, the peer team notices that JCI has already undertaken efforts to meaningfully change the situation. Reportedly, three experts holding a PhD degree have been successfully recruited for each programme since the completion of the evaluation procedure. These are experts in the field of Automation, Electronic and Electric Power Transmission and Electronic Technology in case of the EEA programme and experts in the fields of Data Mining, Artificial Intelligence, and Software Project and Management in case of the SE programme, respectively. In the eyes of the peers, this is a significant step forward. However, any detailed information about the academic qualification and professional experience of these experts (e.g. staff CV) is lacking as is any information regarding their role and teaching obligations in the respective programme. JCI is requested to deliver this information in the course of the accreditation procedure (see below, sec. E, requirement 2). Apart from that, the peers consider the newly hired staff a significant enlargement of the capacity basis of the degree programmes, which will play a key role in maintaining and developing their quality.

In this respect, the peers also welcome the faculty development plan to support excellent graduates in pursuing their doctoral studies as well as selected lecturers in deepening their practical competences in appropriate enterprises. Yet again, any evidence of this plan is

missing so far and, hence, should be produced in the further procedure (see below, sec. E, requirement 2).

In the evaluation, the peers have criticized the poor staffing of the laboratory units, which in their eyes could seriously affect the full achievement of the application-oriented learning outcomes in the respective courses. JCI declares to having recruited five laboratory technicians with corporate work experience. Although no further information about the professional backgrounds of this supportive staff – except of their (Master) qualification – has been provided, the peers consider this a significant consolidation of the programmes' personal resource base. They accept JCI's statement as sufficient and do not see a demand for more evidence.

Monitoring of student workload (ASIIN 1.5)

According to the statement, the college already commits itself to closely observe the actual workload of students per course and to refine the monitoring system successively. In addition, JCI provides some statistical data to underline its argument. However, the statistical data brought to the peers' attention is presented in Chinese only and therefore could not be validated. The "comprehensive management mechanism" addressed by JCI might be a benefitting QA instrument, but the collection of data produced along with the statement, again, is only available in the original Chinese version. The peers thus could not fully assess the information, the more so since the data itself does not confirm its adequate use in the QA of the programmes. Consequently, the peers would like to see not only which types of data the "comprehensive management mechanism" allows to collect, but also how these data will be processed in the QA system of JCI (see below, sec. E, requirement 3).

English proficiency of students and lecturers (ASIIN 1.3)

The peers acknowledge JCI's commitment to undertake special efforts with regard to the students' and lecturers' English language skills and the envisaged strategy to achieve this aim. Until put into practice and validated accordingly, the peer team considers a recommendation to this end reasonable (see below, sec. E, recommendation 1).

Graduation practice (mandatory internship) (ASIIN 1.3)

The peers understand that JCI has developed and put in place the "Regulations for the Management of Graduation Internship, JCI". This document appears to be a rigorous and reliable framework for the organisation, conduct, supervision and assessment of the graduation practice (company internship) as well as its meaningful integration in the curriculum of the study programmes considered here. Through this, the pre-set amount of 10 ECTS, an obligatory "Graduation Internship Schedule" (Art. 5 number (a) and Annex 3 of the regula-

tion), and a "Graduation Internship Outline" (Art. 9 and Annex 2 of the regulation), JCI ensures a comparable student workload for the timely achievement of the intended learning outcomes. Especially instructing in this regard is the wording of Art. 12 of the regulation: "In formulating the internship plan, attention should be paid to the connection between the preceding and following courses and the cooperation with other teaching sessions. *Once the internship plan is approved, it shall be strictly implemented and shall not be changed, advanced, postponed or shortened at will.*"

Furthermore, the regulation entails many reasonable provisions such as a clear definition of the learning objectives, supervision and guidance, as well as accompanying requirements. Although the annexes have not been submitted along with the regulation itself, the peer team finds its concerns regarding the unspecified length of the graduation practice sufficiently resolved. Nevertheless, JCI should provide evidence that this regulation is not just an internal paper produced for the purposes of the accreditation procedure, but one duly put into effect and practice in the college (see below, sec. E, requirement 4).

Organisation and procedure of short-term internships (ASIIN 1.3)

The peers acknowledge that JCI has developed "Regulations for the Management of Internships and Practical Training, JCI" and just begun to adopt them in the study programmes. These guidelines provide general rules for the implementation and conduct of all internships – with the exception of the "Graduation internship", for which a separate statutory document has been elaborated and put into place (see above). The peers welcome JCI's efforts to define the conditions and requirements of the (short-term) internships more clearly and thereby to integrate them into the programmes more meaningfully. As these "regulations" – similar to the management rules for the Graduation practice − are presented in an unofficial English text document only, evidence for their formal enactment should to be provided in the course of the accreditation procedure (see below, sec. E, requirement 4).

Internationalization strategy of JCI (ASIIN 1.3)

The peers note JCI's willingness to pursue profound efforts to internationalize its ties with other HEIs in order to increase the mobility of both the students and the teaching staff. The success of this approach should be evaluated in the process of re-accrediting the study programmes. Hence, the peers propose keeping up a respective recommendation of the evaluation report (see below, sec. E, recommendation 2).

Consistency of study-related documents (ASIIN 4.1)

In the evaluation procedure, the peers identified inconsistencies in the updated version of "Course handbooks". In its statement, JCI declares to having organized a "validation process" leading to the revision of the "Course handbook" and the "Teaching Plan". In addition, in accordance with this, the revised version has been made publicly available on the College's website, facilitating the student's access. The peers presume the validity of JCI's indication and waive the option to formally include the issue in their recommended resolution.

Diploma Supplement (ASIIN 4.2)

As indicated in the evaluation report, no Diploma supplement is issued hitherto nor has a template been provided so far. The peers propose a respective recommendation and appreciate JCI's declared willingness to follow (see below, sec. E, recommendation 3).

Lab education in technical courses / EEA programme

JCI indicates that it has already revised the experiments of the course *Principle and Application of Single Chip Microcomputer* and integrated comprehensive as well as design experiments. Although it would be highly welcomed, there is no material evidence for this statement (like a lab manual, course syllabus, or the like). Therefore, the recommendation formulated to this end in the evaluation report is maintained (see below, sec. D, recommendation 4).

E Summary: Peer recommendations (14.11.2022)

Based on the evaluation procedure and taking into account the additional information and the comments given by JCI, 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
Ba Electrical Engineering and Automation	With requirements for one year	30.09.2028	EUR-ACE®	30.09.2028*
Ba Software Engineering	With requirements for one year	30.09.2028	Euro-Inf®	30.09.2028

*Subject to the approval of the ENAEE Administrative Council

Requirements

For both Bachelor programmes

A 1. (ASIIN 1.3) Increase the theoretical depths of disciplinary core courses in order to better achieve the intended learning outcomes, e.g. through reducing the amount of topics within the individual course.

A 2. (ASIIN 3.1) Provide adequate information about the academic and professional background of newly recruited PhD holders as well as a about their role and obligations in the respective degree programme. In this connection, the Faculty Development Plan mentioned in the statement of the college must be presented.

A 3. (ASIIN 1.5, 5) Provide evidence of the establishment of the “comprehensive management mechanism”. Clarify how the data collected with this mechanism are utilized, in particular with regard to monitoring the student workload.

A 4. (ASIIN 1.3, 4.2) Provide evidence of the validity of the “Regulations for the Management of Graduation Internship” as well as the “Regulations for the Management of Internships and Practical Training”.

Recommendations

For both Bachelor programmes

E 1. (ASIIN 1.3) It is recommended to strengthen the English proficiency of both students and lecturers.

E 2. (ASIIN 1.3) It is recommended to further strengthen the internationalization strategy of the College in order to increase the mobility of students and teachers.

E 3. (ASIIN 4.2) It is recommended to generate and issue a Diploma Supplement according to the ECTS User's Guide.

For the Bachelor degree programme Electrical Engineering and Automation

E 4. (ASIIN 1.3) It is recommended to revise and, possibly, increase the quality of the lab education of technical courses (e.g. course Principle and Application of Single Chip Microcomputer).

F Comment of the Technical Committees

Technical Committee 02 – Electrical Engineering/Information Technology (25.11.2022)

Assessment and analysis for the award of the ASIIN seal:

The Technical Committee discusses the accrediting procedure and in particular requirement A 2. According to the members of the committee, the formulation is misleading because it suggests that the main problem lies only in the missing documentation of the qualification of the teaching staff instead of in the number of sufficiently qualified teachers (at least with a PhD degree) for the programmes as well. Thus, the Technical Committee agrees to change the formulation of A2 accordingly. Other than that, the Technical Committee follows the assessment of the peers.

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

Degree Programme	ASIIN Seal	Maximum duration of accreditation	Subject-specific label	Maximum duration of accreditation
Ba Electrical Engineering and Automation	With requirements for one year	30.09.2028	EUR-ACE®	30.09.2028*
Ba Software Engineering	With requirements for one year	30.09.2028	Euro-Inf®	30.09.2028

*Subject to the approval of the ENAEE Administrative Council

Proposed changes by the Technical Committee:

A 2. (ASIIN 3.1) The Faculty Development Plan mentioned in the statement of the College must prove that the professional staff (at least PhD holders) is qualified to provide and develop the academic quality of the programmes.

Technical Committee 04 – Informatics/Computer Science (29.11.2022)

Assessment and analysis for the award of the ASIIN seal:

The Technical Committee discusses the accrediting procedure and in particular requirement A 1 and requirement E 3. Regarding A 1, the TC is of the opinion that the formulation "to better achieve" would suggest that the intended learning outcomes are already well achieved, which would not justify a requirement. Therefore, the TC suggests removing the formulation "even better" as well as the example (e.g.) at the end, as this last part of the requirement is not necessary in the view of the TC. Regarding E 3, the TC is in favour of changing E 3 into a requirement (A 5). In addition, it proposes substituting the term "validity" through "realization" in requirement 4.

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

Degree Programme	ASIIN Seal	Maximum duration of accreditation	Subject-specific label	Maximum duration of accreditation
Ba Electrical Engineering and Automation	With requirements for one year	30.09.2028	EUR-ACE®	30.09.2028*
Ba Software Engineering	With requirements for one year	30.09.2028	Euro-Inf®	30.09.2028

*Subject to the approval of the ENAEE Administrative Council

Proposed changes by the Technical Committee:

A 1. (ASIIN 1.3) Increase the theoretical depths of disciplinary core courses in order to achieve the intended learning outcomes.

A 4. (ASIIN 1.3, 4.2) Provide evidence of the *realization* of the "Regulations for the Management of Graduation Internship" as well as the "Regulations for the Management of Internships and Practical Training".

A 5. (ASIIN 4.2) It is recommended to generate and issue a Diploma Supplement according to the ECTS user's Guide. [*new requirement instead of recommendation 3*]

~~E 3. (ASIIN 4.2) It is recommended to generate and issue a Diploma Supplement according to the ECTS user's Guide.~~

G Decision of the Accreditation Commission (09.12.2022)

Assessment and analysis for the award of the subject-specific ASIIN seal:

The Accreditation Commission intensively discusses the procedure, in particular the proposed changes of requirements 1 (Technical Committee 04) and 2 (Technical Committee 04). The Commission considers the formulation of the requirements by the peers to be adequate and therefore cancels the reformulations by the Technical Committees 02 and 04. Regarding recommendation 3, it points to the fact that the ASIIN accreditation standards are based on the ESG, which require a Diploma Supplement as provided by the European Commission. Hence, in that respect the Commission follows TC 04 and decides to put it as a requirement (new requirement 5) instead of a recommendation. The Commission makes sure that using the phrase "validity" in requirement 4 adequately reflects the intention of the peers and, consequently, does not adopt the alternative wording "realisation" proposed by TC 04.

The Accreditation Commission decides to award the following seals:

Degree Programme	ASIIN Seal	Maximum duration of accreditation	Subject-specific label	Maximum duration of accreditation
Ba Electrical Engineering and Automation	With requirements for one year	30.09.2028	EUR-ACE®	30.09.2028*
Ba Software Engineering	With requirements for one year	30.09.2028	Euro-Inf®	30.09.2028

*Subject to the approval of the ENAEE Administrative Council

Requirements

For both Bachelor programmes

A 1. (ASIIN 1.3) Increase the theoretical depths of disciplinary core courses in order to better achieve the intended learning outcomes, e.g. through reducing the amount of topics within the individual course.

A 2. (ASIIN 3.1) Provide adequate information about the academic and professional background of newly recruited PhD holders as well as a about their role and obligations in the respective degree programme. In this connection, the Faculty Development Plan mentioned in the statement of the College must be presented.

A 3. (ASIIN 1.5, 5) Provide evidence of the establishment of the "comprehensive management mechanism". Clarify how the data collected with this mechanism are utilized, in particular with regard to monitoring the student workload.

A 4. (ASIIN 1.3, 4.2) Provide evidence of the validity of the "Regulations for the Management of Graduation Internship" as well as the "Regulations for the Management of Internships and Practical Training".

A 5. (ASIIN 4.2) Generate and issue a Diploma Supplement according to the ECTS User's Guide.

Recommendations

For both Bachelor programmes

E 1. (ASIIN 1.3) It is recommended to strengthen the English proficiency of both students and lecturers.

E 2. (ASIIN 1.3) It is recommended to further strengthen the internationalization strategy of the College in order to increase the mobility of students and teachers.

For the Bachelor degree programme Electrical Engineering and Automation

E 3. (ASIIN 1.3) It is recommended to revise and, possibly, increase the quality of the lab education of technical courses (e.g. course Principle and Application of Single Chip Microcomputer).

H Fulfilment of Requirements (28.06.2024)

Analysis of the experts and the Technical Committees (30.11.2023)

Requirements

For all both programmes

A 1. (ASIIN 1.3) Increase the theoretical depths of disciplinary core courses in order to better achieve the intended learning outcomes, e.g. through reducing the amount of topics within the individual course.

Initial Treatment	
Peers	*not* (completely) fulfilled (both programmes) Justification: *For the EEA programme*: For two modules („Electrical Engineering“ and „Microcontroller“) more detailed module descriptions have been submitted showing more in depth content. However, to reliably assess the fulfilment of A 1, the fully revised Module Handbook would be needed. For instance, as „Electrical Engineering“ also focusses on electric machines it would be significant to know whether the module „Fundamentals of Electrical Engineering“ really covers the basics in depth. *For the SE programme*: A major increase of the theoretical depth for the two example modules given could not be identified. Only a few minor content changes are indicated.
TC 02	Not completely fulfilled Justification: The TC follows the vote of the experts.
TC 04	Not completely fulfilled Justification: The TC follows the vote of the experts.

A 2. (ASIIN 3.1) Provide adequate information about the academic and professional background of newly recruited PhD holders as well as a about their role and obligations in the respective degree programme. In this connection, the Faculty Development Plan mentioned in the statement of the College must be presented.

Initial Treatment	
Peers	*not* (completely) fulfilled (both programmes) Justification: For the EEA programme: While the role and teaching obligations of the newly hired staff has been clarified in the statement, information/CV has been presented for only one of the new PhD holding staff. In addition, the Faculty Development Plan has not been presented to the peers, which is crucial with regard to the perspectives of the programmes' quality development. For the SE programme: Information is given about the academic and professional background of only two newly recruited PhD holders, but not for the others. Moreover, the Faculty Development Plan has not been presented.
TC 02	Not completely fulfilled Justification: The TC follows the vote of the experts.
TC 04	Not completely fulfilled Justification: The TC follows the vote of the experts.

A 3. (ASIIN 1.5, 5) Provide evidence of the establishment of the "comprehensive management mechanism". Clarify how the data collected with this mechanism are utilized, in particular with regard to monitoring the student workload.

Initial Treatment	
Peers	*not* (completely) fulfilled (both programmes) Justification: Based on the documents submitted, the experts find it difficult to understand how, particularly, the student workload is monitored.
TC 02	Not completely fulfilled Justification: The TC follows the vote of the experts.
TC 04	Not completely fulfilled Justification: The TC follows the vote of the experts.

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A 4. (ASIIN 1.3, 4.2) Provide evidence of the validity of the "Regulations for the Management of Graduation Internship" as well as the "Regulations for the Management of Internships and Practical Training".

Initial Treatment	
Peers	*not* (completely) fulfilled (both programmes) Justification: The regulations are given, but no evidence of their validity has been presented.
TC 02	Not completely fulfilled Justification: The TC follows the vote of the experts.

TC 04	Not completely fulfilled Justification: The TC follows the vote of the experts.

A 5. (ASIIN 4.2) Generate and issue a Diploma Supplement according to the ECTS User's Guide.

Initial Treatment	
Peers	*not* fulfilled (EEA programme) Justification: For the EEA programme, a Diploma Supplement is apparently missing.
TC 02	Not fulfilled (EEA programme) Justification: The TC follows the vote of the experts.
TC 04	Not fulfilled (EEA programme) Justification: The TC follows the vote of the experts.

5 # Decision of the Accreditation Commission (08.12.2023)

The Accreditation Commission decides on the extension of the seal as follows:

Degree Programme	**ASIIN Seal**	**Accreditation until max.**	**Subject-specific label**	**Accreditation until max.**
Ba Electrical Engineering and Automation	Requirement 1 – 5 not fulfilled	6 months prolongation	EUR-ACE®	6 months prolongation
Ba Software Engineering	Requirement 1 – 4 not fulfilled	6 months prolongation	Euro-Inf®	6 months prolongation

Analysis of the experts and the Technical Committees (14.06.2024)

Requirements

For all both programmes

A 1. (ASIIN 1.3) Increase the theoretical depths of disciplinary core courses in order to better achieve the intended learning outcomes, e.g. through reducing the amount of topics within the individual course.

Second Treatment	
Peers	fulfilled Vote: unanimous Justification: For the SE programme: The module descriptions for both courses "Object-Oriented Programming" and "Mobile Internet Technology and Applications" have been condensed and now focus on key topics only. While the module description for "Cloud Computing and Applications" has improved, the content appears largely unchanged. However, since this module was not as critical as the other two, the requirement is considered to be fulfilled. For the EEA programme: The module handbook has been significantly revised and – as requested – now presents comprehensive information on the modules. This leads the experts to the conclusion that the mentioned newly designed modules have been consistently integrated into the curriculum. The requirement is therefore deemed fulfilled.
TC 02	fulfilled Vote: unanimous Justification: The TC follows the vote of the experts.
TC 04	fulfilled Vote: unanimous Justification: The TC follows the vote of the experts.

A 2. (ASIIN 3.1) Provide adequate information about the academic and professional background of newly recruited PhD holders as well as a about their role and obligations in the respective degree programme. In this connection, the Faculty Development Plan mentioned in the statement of the College must be presented.

Second Treatment	
Peers	fulfilled Vote: unanimous Justification: JCI has provided convincing evidence that it has hired and employed in the EEA and SE departments altogether five professors holding a PhD to deliver core teaching and basic research in the degree programmes of the same name. Considering its status as a private university, JCI claims to employ a combination of full-time and part-time faculty (including full-time external hires, part-time external hires, senior experts, weekend experts, etc.). JCI also provided a Faculty Development plan for the departments, which the experts consider meaningful and adequate. In sum, the experts are of the opinion that JCI has sufficiently demonstrated the fulfillment of the requirement.
TC 02	fulfilled Vote: unanimous Justification: The TC follows the vote of the experts.
TC 04	fulfilled Vote: unanimous Justification: The TC follows the vote of the experts.

A 3. (ASIIN 1.5, 5) Provide evidence of the establishment of the "comprehensive management mechanism". Clarify how the data collected with this mechanism are utilized, in particular with regard to monitoring the student workload.

Second Treatment	
Peers	fulfilled Vote: unanimous Justification: JCI has provided ample evidence that it effectively has implemented the so-called "comprehensive management mechanism". Thus, the workload has been monitored and corresponding regulations are in place.
TC 02	fulfilled Vote: unanimous Justification: The TC follows the vote of the experts.
TC 04	fulfilled Vote: unanimous Justification: The TC follows the vote of the experts.

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A 4. (ASIIN 1.3, 4.2) Provide evidence of the validity of the "Regulations for the Management of Graduation Internship" as well as the "Regulations for the Management of Internships and Practical Training".

Second Treatment	
Peers	fulfilled Vote: unanimous Justification: The validity of both documents “Regulations for the Management of Graduation Internship” and “Regulations for the Management of Internships and Practical Training”, respectively, has been demonstrated by JCI.
TC 02	fulfilled Vote: unanimous Justification: The TC follows the vote of the experts.
TC 04	fulfilled Vote: unanimous Justification: The TC follows the vote of the experts.

For the EEA programme

A 5. (ASIIN 4.2) Generate and issue a Diploma Supplement according to the ECTS User’s Guide.

Second Treatment	
Peers	fulfilled Vote: unanimous Justification: A sample Diploma Supplement for the EEA programme has been developed and presented to the experts. It is tailored according to the recommendations of the ECTS User’s Guide and hence entails all information of interest for third parties. There is no reasonable doubt that JCI will issue this Diploma Supplement as an addendum to graduates of both the EEA and the SE programme.
TC 02	fulfilled Vote: unanimous Justification: The TC follows the vote of the experts.
TC 04	fulfilled Vote: unanimous Justification: The TC follows the vote of the experts.

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Decision of the Accreditation Commission (28.06.2024)

Degree Programme	ASIIN Seal	Accreditation until max.	Subject-specific label	Accreditation until max.
Ba Electrical Engineering and Automation	All requirements fulfilled	30.09.2028	EUR-ACE®	30.09.2028*
Ba Software Engineering	All requirements fulfilled	30.09.2028	Euro-Inf®	30.09.2028

*Subject to the approval of the ENAEE Administrative Council

Appendix: Curricula

The following **curriculum** is presented:

a) *Curriculum of the Bachelor Electrical Engineering and Automation (core subject-related courses)*

Module Name	Course			Semester one		Semester two		Semester three		Semester four		Semester five		Semester six		Semester seven		Semester eight		Remark
	Course Name	Type	Attributes	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	
	Physical Education II	P	R			1	30													
	Physical EducationIII	P	R					1	30											
	Physical EducationIV	P	R							1	30									
	Outward Training	P	R													1	30			
	Competitive Sports	P	R															1	30	
Management Ability	Organizational Behavior	P	R	1	30															
	Brand and Marketing Management in the era of Mobile Commerce	P	R			1	30													
	Consumer Psychology	L	R					1	30											
	Financial Management	L	R							1	30									
	Enterprise Strategic Management in the Internet + Era	L	R									1	30							
	Human Resource Management	L	R											1	30					
	Network Advertising	L	E									1	30							
	Investment and Financing Management	L	E																	

Module Name	Course			Semester one		Semester two		Semester three		Semester four		Semester five		Semester six		Semester seven		Semester eight		Remark
	Course Name	Type	Attributes	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	
	Management Science	L	E											1	30					
	MBA Case Analysis of Information Industry	L	E																	
Intercultural Communication ability	College English Ⅰ	L& P	R	3	90															
	College English Ⅱ	L& P	R			3	90													
	College English Ⅲ	L& P	R					3	90											
	College English Ⅳ	L& P	R							3	90									
	Professional English	L	E									2	60							
Mathematical Basis	Calculus A (Part Ⅰ)	L	R	8	240															
	Calculus A (Part Ⅱ)	L	R			10	300													
	College Physics	L	R			6	180													
	Linear Algebra	L	R			4	120													
	Physics Experiment	L	R					2	60											
	Probability and Statistics	L	R					6	180											
	Functions of a Complex Variable	L	R							4	120									

0 Appendix: Curricula

Module Name	Course			Semester one		Semester two		Semester three		Semester four		Semester five		Semester six		Semester seven		Semester eight		Remark
	Course Name	Type	Attributes	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	
Computer Foundation	Computer Application Foundation	L& P	R	4	120															
	Language Programming	L& P	R					5	150											
Electrical Engineering Basis	Engineering Drawing	P	R	2	60															
	Electric Circuit Principles（Ⅰ）	L	R			4	120													
	Electric Circuit Principles（Ⅱ）	L	R					4	120											
	Circuit Experiment	P	R					2	60											
	Analog Electronic Technology	L& P	R					6	180											
	Digital Electronic Technology	L& P	R							6	180									
	Electromagnetic Fields	L& P	E							4	120									
	Electrical and Electronic Integrated Course Design	P	R							2	60									
	Electronic Technology Practice	P	R											2	60					
Basis of	Signal Analysis and Processing	L& P	R							4	120									

Module Name	Course			Semester one		Semester two		Semester three		Semester four		Semester five		Semester six		Semester seven		Semester eight		Remark
	Course Name	Type	Attributes	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	
Control Engineering	Automatic Control Principles	L& P	R									6	180							
	Electrical Measurement Technology	L& P	R											4	120					
	Modern Control Theory	L& P	E											4	120					
	MATLAB Simulation Technology and Applications	P	E											2	60					
Equipment and its Control Technology	Electrical Machinery	L& P	R									6	180							
	Fundamentals of Mono-Chip Computers and Application	L& P	R									4	120							
	Electrical Control and PLC	L& P	R											5	150					
	Embedded System Technology and Applications	P	E									4	120							
	Condition Monitoring and Fault Diagnosis for Electrical Equipment	L& P	E											4	120					
	Intelligent Electrical Control Course Design	P	R													2.5	75			
	Manufacturing Practice	P	R									2	60							
Power System Technology	Power Supply Engineering	L	R									4	120							
	Electrical Drawings and Electronic Circuit CAD	P	E							3	90									
	Power System Analysis Foundation	L& P	R											7	210					

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Module Name	Course			Semester one		Semester two		Semester three		Semester four		Semester five		Semester six		Semester seven		Semester eight		Remark
	Course Name	Type	Attributes	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	
	Relay Protection of Power System	L	R													4	120			
	Power System Microcomputer Protection	L	E													4	120			
	Electrical Engineering System Course Design	P	R													2	60			
Smart Grid Technology	Power Electronics Technology	L& P	R									6	180							
	Smart Grid Scheduling and Control	L	E											4	120					
	High Voltage Technology	L	R													4	120			
	New Energy Power Generation and Grid Connection Techniques	L	E													4	120			
	Artificial Intelligence Technology and Applications	L	E													4	120			
	Smart Grid Communication Technologies and Applications	L& P	E													4	120			
	Intelligent Substation Technology and Applications	L	E													4	120			
Profession Expand	Technology of the Internet of Things	L	E											4	120					

Module Name	Course			Semester one		Semester two		Semester three		Semester four		Semester five		Semester six		Semester seven		Semester eight		Remark
	Course Name	Type	Attributes	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	
	Mobile Internet Technology and Applications	L	E											4	120					
	Cloud Computing and Big Data Technology	P	E													4	120			
Professional Cognition and Practice	Electrical Engineering and Automation Cognition Practice	P	R	2	60															
	Freshman Seminars	L	E	1	30															
Graduation Design	Graduation Practice	P	R															8	240	
	Graduation Project (Thesis)	P	R															12	360	
Credit/Class hours statistics				**26.5**	795	**31.5**	945	**33.5**	1005	**31**	930	33	990	**31**	930	**27.5**	825	**26**	780	**240**

Note: 1. L&P: Learning and Practice; R: Required courses; E: Elective courses

2. There are Elective courses for 4, 5, 6, and 7 semesters of professional education, and select one course from two courses in the 4th and the 5th semester, select three courses from six courses in the 6th and 7th semester.

3. 1 ECTS credit includes 16 hours of teaching and 14 hours of self-study. Self-study includes lectures and seminars. Lectures include knowledge preview before the lecture, listening to the lecture, and summary after the lecture.

4. L&P courses: 1 credit (0.5 credit for learning, 0.5 credit for practice); 1.5 credits (1 credits for learning, 0.5 credit for practice); 3 credits (2 credits for learning, 1 credit for practice); 4 credits (3 credits for learning, 1 credit for practice); 5 credits (3 credits for learning, 2 credits for practice);6 credits (4 credits for learning, 2 credits for practice); 7 credits (5 credits for learning, 2 credits for practice).

b) Curriculum of the Software Engineering (core subject-related courses)

Modules Name	Courses			First Semester		Second Semester		Third Semester		Fourth Semester		Fifth Semester		Sixth Semester		Seventh Semester		Eighth Semester		Remarks
	Course Name	Type	Properties	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	Credits	Credit hours	
	Sports Ⅰ	Practices	Required	1	30															
	Sports II	Practices	Required			1	30													
	Sports III	Practices	Required					1	30											
	Sports IV	Practices	Required							1	30									
	Quality Development Training	Practices	Required													1	30			
	Athletics	Practices	Required															1	30	
Management Capabilities	Organizational Behavior	Theory	Required	1	30															
	Brand and marketing management in the age of mobile commerce	Theory	Required			1	30													
	Consumer Psychology	Theory	Required					1	30											
	Financial Management	Theory	Required							1	30									

Modules Name	Courses			First Semester		Second Semester		Third Semester		Fourth Semester		Fifth Semester		Sixth Semester		Seventh Semester		Eighth Semester		Remarks
	Course Name	Type	Properties	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	Credits	Credit hours	
	Strategic management of enterprises in the Internet+ era	Theory	Required									1	30							
	Human Resource Management	Theory	Required											1	30					
	Online Advertising Studies	Theory	Optional									1	30							
	Investment & Finance Management	Theory	Optional																	
	E-Commerce and Cyber Ethics	Theory	Optional											1	30					
	MBA in Information Industry Case Study	Theory	Optional																	
Intercultural Communication Capabilities	College English Ⅰ	Theory & Practice	Required	3	90															
	College English Ⅱ	Theory & Practice	Required			3	90													
	College English Ⅲ	Theory & Practice	Required					3	90											
	College English Ⅳ	Theory & Practice	Required							3	90									

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Modules Name	Courses			First Semester		Second Semester		Third Semester		Fourth Semester		Fifth Semester		Sixth Semester		Seventh Semester		Eighth Semester		Remarks
	Course Name	Type	Properties	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	Credits	Credit hours	
	Professional English	Theory	Required													4	120			
Mathematics and Science Basic	Calculus A (upper)	Theory	Required	8	240															
	Calculus A (Lower)	Theory	Required			10	300													
	Linear Algebra	Theory	Required			4	120													
	Probability Theory and Stochastic Processes	Theory	Required					6	180											
	University Physics	Theory	Required			6	180													
	Physics experiments	Practices	Required					2	60											
	Discrete Mathematics	Theory	Required			4	120													
Computer Technology Basic	Computer Application Fundamentals	Theory + Practice	Required	4	120															
	Programming Fundamentals	Theory + Practice	Required	6	180															
	Fundamentals of Electronics	Theory + Practice	Required									5	150							

Modules Name	Courses			First Semester		Second Semester		Third Semester		Fourth Semester		Fifth Semester		Sixth Semester		Seventh Semester		Eighth Semester		Remarks
	Course Name	Type	Properties	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	Credits	Credit hours	
	Technology																			
	Object Oriented Programming	Theory	Required							5	150									
	Data Structures and Algorithms	Theory + Practice	Required					7	210											
	Database Application Technology	Theory + Practice	Required							5	150									
	Principles of Computer Composition	Theory + Practice	Required							5	150									
	Computer Networks	Theory + Practice	Required									5	150							
	Introduction to Computational Thinking	Theory	Optional							4	120									
	Object-oriented programming practice	Practices	Required							2	60									
	Electronics Process Internship	Practices	Required									2	60							

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Modules Name	Courses			First Semester		Second Semester		Third Semester		Fourth Semester		Fifth Semester		Sixth Semester		Seventh Semester		Eighth Semester		Remarks
	Course Name	Type	Properties	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	Credits	Credit hours	
Software & Systems	Operating System	Theory + Practice	Required									5	150							
	Linux Fundamentals and Applications	Theory + Practice	Required					4	120											
	Software Design	Theory + Practice	Required									5	150							
	Software Construction	Theory	Optional											4	120					
	Algorithm analysis and design	Theory	Optional							4	120									
	Design Patterns	Theory	Optional							4	120									
Computer Applications Technology	Web Application Development Technology	Theory	Required									4	120							
	Multimedia Application Technology	Theory	Required											4	120					
	Python Programming	Theory	Optional							4	120									
	Cloud Computing and Applications	Theory	Optional							4	120									
	Virtual Reality	Theory	Optional									4	120							

Modules Name	Courses			First Semester		Second Semester		Third Semester		Fourth Semester		Fifth Semester		Sixth Semester		Seventh Semester		Eighth Semester		Remarks
	Course Name	Type	Properties	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	Credits	Credit hours	
	Technology and Applications		nal																	
	Big Data Application Technology	Theory	Optional									4	120							
	Agricultural Information Technology	Theory	Optional													4	120			
	Artificial Intelligence Technology	Theory	Optional											4	120					
	Information Security Application Technology	Theory	Required													4	120			
	Mobile Internet Technology and Applications	Theory	Required											4	120					
	Website Design	Practices	Required											2	60					
	Mobile Internet Technology and Application Practice	Practices	Required											2	60					

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Modules Name	Courses			First Semester		Second Semester		Third Semester		Fourth Semester		Fifth Semester		Sixth Semester		Seventh Semester		Eighth Semester		Remarks
	Course Name	Type	Properties	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	Credits	Credit hours	
Software Engineering and Management	Software Engineering	Theory + Practice	Required					5	150											
	Engineering Economics	Theory	Optional									4	120							
	Software Process and Management	Theory	Optional											4	120					
	Software Project Management	Theory	Required													4	120			
	Software requirement analysis and modeling techniques	Theory + Practice	Optional											4	120					
	Software Quality Assurance and Testing	Theory + Practice	Required											5	150					
	Software Engineering Course Design	Practices	Required											2	60					
	Software Quality Assurance and Testing Course Design	Practices	Required											2	60					
	Integrated Software Project Practice	Practices	Required													2.5	75			

Modules Name	Courses			First Semester		Second Semester		Third Semester		Fourth Semester		Fifth Semester		Sixth Semester		Seventh Semester		Eighth Semester		Remarks
	Course Name	Type	Properties	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	Credit	Credit hours	Credits	Credit hours	
Copyright Awareness	Patent and Intellectual Property Protection	Theory	Optional													4	120			
	Literature Search and Dissertation Writing	Theory	Required													4	120			
Specialties Cognitive	Cognitive Internship	Practices	Required	2	60															
	New Student Seminar	Theory	Optional	1	30															
Graduation Design	Graduation Internship	Practices	Required															8	240	
	Graduation design (thesis)	Practices	Required															12	360	
Credit/Hours Statistics				**29.5**	885	**32.5**	975	**32.5**	975	33	990	**32**	960	**29**	870	**25.5**	765	**26**	780	**240**

Note: Professional Education 4, 5, 6 and 7 semester elective courses, 1 course per semester.

1 ECTS credit includes 16 hours of teaching and 14 hours of self-study. Self-study includes lectures and seminars. Lectures include knowledge preview before the lecture, listening to the lecture, and summary after the lecture.

Theoretical + practical course credit composition: 1 credit (0.5 credit for theory, 0.5 credit for experiment), 1.5 credits (1 credit for theory, 0.5 credit for experiment), 3 credits (2 credits for theory, 1 credit for experiment), 4 credits (3 credits for theory, 1 credit for experiment), 5 credits (3 credits for theory, 2 credits for experiment), 6 credits (4 credits for theory, 2 credits for experiment), 7 credits (5 credits for theory, 2 credits for experiment)