ASIIN Seal

Accreditation Report

Bachelor Degree Programs
Electrical Engineering and Automation (EEA)
Electronic Information Engineering (EIE)

Offered by

Changchun Institute of Technology

Version: 25/09/2026

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A. About the Accreditation Process

Name of the degree programme (in original language)	**(Official) English translation of the name**	**Labels applied for**	**Previous accreditation (issuing agency, validity)**	**Involved Technical Committees (TC)**
电气工程及其自动化	Electrical Engineering and Automation (EEA)	ASIIN Seal	/	02
电子信息工程	Electronic Information Engineering (EIE)	ASIIN Seal	/	02
Date of the contract: December 2, 2025 **Submission of the final version of the SAR:** May.28, 2026 **Date of the onsite visit:** June 25-26, 2026 **at:** Changchun Institute of Technology, Changchun, China				
Expert panel: Prof. Dr. Ralf Müller, Friedrich-Alexander University of Erlangen– Nürnberg Prof. Dr. Moustafa Nawito, IU Internationale Hochschule Dr. Yuming Song, Luance Management Consultancy Yuning Yu, Doctor Student at Tongji University				
Representative of the ASIIN headquarter: Yangzemiao Song				
Responsible decision-making committee: Accreditation Commission for Degree Programs				
Criteria used: European Standards and Guidelines as of May 15, 2015 ASIIN General Criteria as of March 28, 2023 Technical Committee 02 – Electrical Engineering/Information Technology as of September 23, 2022				

B. Context of the Degree Program

B-1. Accreditation Status

Result Overview

The most recent decision for the ASIIN Seal was made by the ASIIN Accreditation Commis-
5 sion on 25.09.2026.

Degree Programmes	ASIIN Seal	Accredited by German Engineers	Validity	European Label	Validity
Ba Electrical Engineering and Automation	Accredited with requirements	Accredited with requirements	25.09.2026 – 16.10.2027	Wählen Sie ein Element aus.	
Ba Electronic Information Engineering	Accredited with requirements	Accredited with requirements	25.09.2026 – 16.10.2027	Wählen Sie ein Element aus.	

Fulfilment of the Accreditation Criteria

ASIIN General Criteria / Subject-Specific Criteria	Ba Electrical Engineering and Automation	Ba Electronic Information Engineering
1 Degree programme: Concept, Content & Implementation		
1.1 Objectives and learning outcomes (intended qualification profile)	Not fulfilled Requirement A1	Not fulfilled Requirement A1
1.2 Title of the degree programme	Not fulfilled Requirement A7	Fulfilled
1.3 Curriculum	Not fulfilled Requirement A1	Not fulfilled Requirement A1
1.4 Admission requirements	Not fulfilled Requirement A2	Not fulfilled Requirement A2
1.5 Workload and credits	Not fulfilled	Not fulfilled

ASIIN General Criteria / Subject-Specific Criteria	**Ba Electrical Engineering and Automation**	**Ba Electronic Information Engineering**
	Requirement A3, A4	Requirement A3, A4
1.6 Didactics and teaching methodology	Fulfilled	Fulfilled
2 Exams: System, Concept and Organisation		
2 Exams: System, Concept and Organisation	Fulfilled	Not fulfilled Requirement A8
3 Resources		
3.1 Staff and staff development	Fulfilled	Fulfilled
3.2 Student support and student services	Fulfilled	Fulfilled
3.2 Funds and equipment	Fulfilled	Fulfilled
4 Transparency and Documentation		
4.1 Module descriptions	Not fulfilled Requirement A1	Not fulfilled Requirement A1
4.2 Diploma and Diploma Supplement	Not fulfilled Requirement A5	Not fulfilled Requirement A5
4.3 Relevant rules	Fulfilled	Fulfilled
5 Quality Management: Quality Assessment and Development		
5 Quality Management: Quality Assessment and Development	Not fulfilled Requirement A6	Not fulfilled Requirement A6

Requirements

For all degree programs:

A 1. [ASIIN 1.1, 1.3, 4.1] Ensure that the latest versions of the intended learning outcomes, curricula, and module descriptions are publicly accessible to all relevant stakeholders.

A 2. [ASIIN 1.4] Define and implement adequate rules for the recognition of qualifications achieved externally.

A 3. [ASIIN 1.5] Use a uniform conversion basis, with one ECTS credit corresponding to a fixed workload value in line with the European Credit Transfer and Accumulation System.

A 4. [ASIIN 1.5] Establish and implement a transparent mechanism for systematically evaluating and verifying students' actual workload, as well as to involve students in the review and adjust credits where necessary.

A 5. [ASIIN 4.2] Ensure that all graduates are provided with a Diploma Supplement in English in line with the ASIIN criteria.

A 6. [ASIIN 5] Ensure that students are informed about the evaluation results.

For Bachelor program EEA:

A 7. [ASIIN 1.2 EEA] Ensure that the official English name of the degree program accurately reflects its academic focus and content.

For Bachelor program EIE:

A 8. [ASIIN 2 EIE] Ensure that the thesis adheres to scientific and academic standards, including a clear problem statement, an appropriate methodology, a literature review, a justified solution-selection process, a discussion of the results, and an outlook. In addition, make sure that the practical work is carried out with sufficient scientific rigour and is supported by adequate theory and data.

Accreditation History

The programmes have not been previously accredited by ASIIN.

B-2. Numbers and facts

a) Name	Final degree (original/English translation)	b) Areas of Specialization	c) Corresponding level of the EQF[1]	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	工学学士 / Bachelor of Engineering		6	Full time		8 Semesters	215 ECTS/166 Chinese credits	Annually (fall semester)/first intake 1999
Electronic Information Engineering	工学学士 / Bachelor of Engineering		6	Full time		8 Semesters	212 ECTS/165 Chinese credits	Annually (fall semester)/first intake 2002

B-3. Characteristics and features

Changchun Institute of Technology (CCIT) is a university jointly established by the People's Government of Jilin Province and the Ministry of Emergency Management. It is authorized by the State Council to confer master's and bachelor's degrees. The institution traces its origins to three former higher vocational and technical schools established by central ministries: Changchun Architectural Advanced Vocational School, established in 1951; Changchun Technical School of Surveying and Geology, established in 1952; and Changchun Hydropower Engineering School, established in 1953. These three institutions were merged in 2000 to form Changchun Institute of Technology.

According to the institutional profile, the university currently enrolls more than 16,000 full-time students, covers five academic disciplines, and offers 44 undergraduate programs. Its research infrastructure includes the National and Local Joint Engineering Research Center for Intelligent Distribution Grid Measurement, Control, and Safe Operation Technology. According to the SAR, 15 programs, including Electrical Engineering and Automation and Electronic Information Engineering, have been accredited through China Engineering Education Accreditation Association.

The School of Electrical and Information Engineering (SEIE) offers the bachelor programs **Electrical Engineering and Automation** (EEA) and **Electronic Information Engineering** (EIE). Since 2005 the SEIE has begun to offer a master's degree program in Electrical Engineering with focus on Energy and Power. For both programs, the institutional and program profiles describe a broader framework of applied engineering education, research platforms, and

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

industry-oriented talent cultivation. The SAR presents the university-level engineering research centers, provincial laboratories, program construction sites, and teaching teams as supporting structures for the practical orientation of the two programs. The tuition fee is RMB 5940 (approx. EUR 669) per year.

The Electrical Engineering and Automation program traces back to the Electric Power Program of Changchun Hydropower Engineering School, which was established with the approval of the Fuel Industry Ministry of the Central People's Government in 1953. The program began enrolling undergraduate students in 1999. According to the SAR, it was accredited through China Engineering Education Accreditation Association in January 2019. In 2020, it was approved to launch a cooperative education program with New Mexico State University in the United States.

The EEA program currently has 819 full-time enrolled students and 38 full-time faculty members. The program is primarily oriented toward the power industry and related enterprises and aims to cultivate applied engineering talents for this sector. The SAR reports that graduates are mainly employed by enterprises such as State Grid or China Southern Power Grid. In recent years, the graduate employment rate has remained above 92%, with 85% of graduates taking positions in major power enterprises such as State Grid, China Southern Power Grid, and the five major power generation corporations.

The Electronic Information Engineering program traces its roots to the junior college-level Electronic Information Science and Technology program established by Changchun Institute of Technology in 1999. The undergraduate program in Electronic Information Engineering began enrollment in 2002.

The EIE program currently has 338 full-time students and 15 full-time teachers. The program mainly focuses on the electronic information industry and related enterprises in areas such as communication, automotive technology, medical technology, and the Internet of Things, and it aims to cultivate applied senior specialized talents. According to the SAR, the employment rate of graduates over the past five years has remained above 90%.

The current ASIIN accreditation procedure includes a comprehensive documentation review, on-site evaluations, and stakeholder interviews to thoroughly assess the program’s compliance with international accreditation standards. The detailed evaluation based on ASIIN criteria is provided in the subsequent sections of this report.

C. Assessment of the Expert Panel

This accreditation report is based on the preliminary evaluation report for the degree program under review. As the evaluation report strictly adheres to the relevant general and subject-specific accreditation criteria, no changes have been made to the evaluative chapters. The expert panel considered the statement and additional information of the HEI for its concluding remarks and recommended resolution.

The following sections of the report are based on the audit discussions the expert panel had with relevant stakeholder groups: representatives of the rectorate's office, program coordinators, representatives of the Quality Management Department and the International Office, teaching and lab staff, students, partners from industry and the private sector, and alumni.

This stage of the evaluation focuses on an assessment of the study program under review according to the criteria stipulated in the ASIIN General Criteria and the Subject-Specific Criteria (SSC) of the ASIIN Technical Committee Technical Committee 02 - Electrical Engineering/Information Technology (see Chapter A).

In addition to the audit meetings, the expert panel relies on the documentation about the program and the regulatory framework that CCIT has provided before, during and after the audit.

C-1. Objectives and learning outcomes of the degree program [ASIIN 1.1]

Description of the current status:

For both programs, the Self-Assessment Report (SAR) identifies the talent cultivation plan as the central document for defining educational objectives, intended learning outcomes, disciplinary standards and the module structure. The SAR states that the objectives are developed with reference to the university's overall orientation towards applied talent cultivation, the characteristics of the respective discipline, and the knowledge, skills and competences required by the relevant industries. The corresponding objectives, disciplinary standards and module arrangements are documented in the talent cultivation plans for both programs (Appendix 05-1-01; Appendix 05-1-02).

The SAR further states that the learning outcomes are decomposed into assessable outcomes, and their relationship to the curriculum system is documented in the program objectives matrices (Appendix 07-1-01; Appendix 07-1-02). The learning outcomes in both programs are structured around twelve areas:

- Engineering Knowledge
- Problem Analysis
- Design/Development of Solutions
- Research
- Use/Application of Modern Tools
- Engineering and Society
- Environment and Sustainable Development
- Professional Ethics
- Individual and Teamwork
- Communication
- Project Management
- Lifelong Learning

According to the SAR, both programs are designed as outcome-based applied engineering programs. While the structural framework of learning outcomes is identical across the two programs, the disciplinary specification differs: EEA refers to the engineering application context of power systems, whereas EIE refers to the engineering application contexts of telecommunications, automotive technologies, healthcare, and the Internet of Things.

EEA - Electrical Engineering and Automation

The SAR states that the EEA program is set in the engineering application context of power systems. It aims to cultivate applied talents with balanced development in moral, intellectual, physical, aesthetic and labor education. Graduates are expected to possess a solid theoretical foundation, practical competence, innovation and transformation capability, an international perspective and a sense of social responsibility. The intended professional fields include engineering design, technological upgrading, installation and commissioning, operation and maintenance, inspection and testing, information processing, engineering management and market trading in the power system sector.

For graduates approximately five years after graduation, the SAR defines objectives related to legal and policy awareness in the power industry, engineering ethics, the application of

mathematics, natural sciences, engineering fundamentals and specialized electrical engineering knowledge, the use of modern tools for solving complex electrical engineering problems, teamwork and project coordination, international communication, innovation in electrical systems, units and devices, and lifelong learning.

EIE - Electronic Information Engineering

The SAR states that the Electronic Information Engineering program is positioned against the engineering application background of telecommunications, automotive technologies, healthcare and the Internet of Things. It aims to cultivate application-oriented specialists with professional ethics, innovation awareness, a global perspective and social responsibility. Graduates are expected to work in development, design, testing, production operation and project management in electronic information fields, including intelligent hardware and signal and image processing.

For graduates approximately five years after graduation, the SAR defines objectives covering humanistic literacy, professional ethics, social responsibility, health and legal awareness, the ability to develop, design, test and manage electronic information systems or products, the ability to design and implement solutions to complex electronic information engineering problems, teamwork and collaboration, interdisciplinary and cross-cultural communication, and lifelong learning.

During the on-site interviews, student and faculty representatives confirmed that the program objectives and corresponding learning outcomes are published on CCIT's official homepage and recruitment APP. They are also included in the student brochures distributed to freshmen at the beginning of their first semester.

Reportedly, the learning outcomes are reviewed and revised every four years, with minor updates made annually. Revisions draw on input from stakeholders, including faculty, students, employers, and professional bodies. The latest major version will be released in 2026. Curricular changes are informed by industry needs and student feedback, such as the introduction of a new course on data-intensive computing methods.

Analysis and assessment of the expert panel:

The expert panel concludes that the study objectives and learning outcomes of both programs are clearly formulated and consistent with the intended qualification level of a practice-oriented engineering program. The respective objectives adequately prepare graduates for professional employment or further academic study.

The program demonstrates a strong connection to regional and national industry needs, reflecting the university's mission as an application-oriented institution. These links ensure

that the training objectives remain relevant to the evolving industrial and technological landscape.

The expert panel recognizes that the program's learning outcomes are well structured and are broadly aligned with the relevant SSC 02 (Electrical Engineering/Information Technology). The university applies a structured objective–module matrix to map these learning outcomes to specific modules and graduation requirements. The program emphasizes not only theoretical and technical competencies but also the development of transferable skills such as teamwork, communication and innovation, which are reinforced through project-based learning and practical training. The expert panel reviewed the availability of the learning outcomes in both Chinese and English on the official website and confirmed that the Chinese version was consistent with the English translation.

The experts acknowledge that the submitted talent cultivation plans, including the learning outcomes of both programs, date from 2022, while the latest 2026 versions are currently being finalized. To ensure that the assessment is based on up-to-date documentation, the experts require the university to submit the official 2026 talent cultivation plans after publication, so that the alignment of the learning outcomes with the current curricula can be verified.

Furthermore, the experts identify that although the English learning outcomes are available on the university's English website (https://dxxy.ccit.edu.cn/zyrz/ASIIN.htm), this page was created primarily for ASIIN accreditation rather than for broader international communication. The experts therefore advise the university to maintain and update the English website beyond the accreditation process.

Final assessment of the experts after the statement of the Higher Education Institution regarding criterion 1.1

For both programs:

The university submitted the official 2026 talent cultivation plans for both programs and explained that the number of intended learning outcomes has been reduced from 12 to 11. The former Item 6, Engineering and Society, and Item 7, Environment and Sustainable Development, have been merged into the new Item 6 of the 2026 version, Engineering and Sustainability. According to the university, this revision is intended to better reflect national requirements related to sustainable development.

The experts reviewed the revised documents and acknowledge the changes made. However, they note that the 2026 talent cultivation plans are not yet available on the university's official website (https://dxxy.ccit.edu.cn/rcpy/pyfa.htm). Therefore, the experts strongly recommend ensuring that the revised intended learning outcomes are formally

binding and publicly accessible to all relevant stakeholders (A1). In addition, the experts maintain their recommendation concerning the availability and regular updating of the English-language website (E1).

Generally, the experts assess the criterion as partially fulfilled.

C-2. Name of the degree program [ASIIN 1.2]

Description of the current status:

Based on the information presented in the SAR, appendices and on the official homepage, the official titles of the two bachelor programs are:

- Electrical Engineering and Automation (in Chinese: 电气工程及其自动化)
- Electronic Information Engineering (in Chinese: 电子信息工程)

The designation of both program titles is in accordance with the national regulatory framework for higher education in China. The SAR lists them as a full-time eight-semester program. The diploma certificate and diploma supplement samples identify the final degree as Bachelor of Engineering (B.Eng. / 工学学士) and show Changchun Institute of Technology as the awarding and administering institution (Appendices 06.1.01-06.1.02;21.1.01-21.2.02). Electrical Engineering and Automation was first offered in 1999, while Electronic Information Engineering was first offered in 2002.

EEA - Electrical Engineering and Automation

The SAR states that Electrical Engineering and Automation is listed in the national Catalog of Undergraduate Programs in Ordinary Higher Education Institutions under Program Code 080601. The name is described as corresponding to the internationally recognized discipline of Electrical Engineering/Information Technology. According to the SAR, the title covers the generation, transmission and utilization of electrical energy as well as automatic control systems, including power systems, electrical machinery, power electronics and the relevant industrial automation.

The program title is used consistently in documents related to admission, teaching and employment. The SAR states that the meaning of the title is further communicated through admission publicity, freshman orientation and introductory professional practice, while university-industry cooperation and practical training are used to relate the program name to possible professional career orientations.

EIE - Electronic Information Engineering

The SAR states that Electronic Information Engineering is listed in the national Undergraduate Program Catalog of Regular Institutions of Higher Education under Program Code 080701. The name is described as covering electronic technology and information processing, with a focus on electronic devices, circuits and systems for the acquisition, transmission, processing, control and intelligent application of information.

According to the SAR, the program title refers to areas such as electronic circuits and systems, signal and information processing, measurement and control, sensing technology, embedded systems and computer applications. The university uses the title in admission, teaching and employment documents, and explains the connection between the title, curriculum and professional career orientation through admission outreach, freshman orientation, introductory professional internships, university-industry cooperation and practical training.

Analysis and assessment of the expert panel

The expert panel acknowledges that the Chinese program title conforms with national standards and does not present any legal or formal inconsistencies. The designation (both in the original language and in English) is used consistently in all relevant documents such as internal university documents, public websites, and student records. The university also uses the program title in admission, teaching and employment documents and explains its connection with the curriculum and career fields through admission outreach, orientation, introductory professional internships, university-industry cooperation and practical training.

For the EIE program, the expert panel finds that the program title corresponds to the documented curricular structure and the competence profile presented in the program handbook. The program title is consistent with the defined learning outcomes and accurately reflects the academic content and focus of the program.

For the EEA program, the experts note that the curriculum has a predominant focus on electrical power engineering, particularly power systems, electrical machines, power electronics, high-voltage engineering and related applications. The automation component is not considered as a separate field of automation engineering, but is mainly embedded in electrical engineering applications, including the automation and control of power systems, electrical machines and drives, power-electronic systems and other electrical equipment.

The experts understand that the Chinese program title Electrical Engineering and Automation (电气工程及其自动化) is defined within the national framework for undergraduate programs and therefore cannot be freely modified. At the same time, the current English

title does not fully convey the program's strong orientation towards electrical power engineering to an international audience. The expert panel therefore recommends revising the official English program title to **Electrical (Power) Engineering and Its Automation**. This designation would more accurately reflect the academic profile of the curriculum while retaining the automation component of the nationally defined Chinese title and would facilitate the recognition and understanding of the program, particularly for incoming exchange students and outgoing students.

Final assessment of the experts after the statement of the Higher Education Institution regarding criterion 1.2

For EEA program:

The university states that it has adopted the experts' suggestion and revised the English program title from "Electrical Engineering and Automation" to "Electrical (Power) Engineering and Its Automation." However, the experts reviewed the relevant English-language website (https://dxxy.ccit.edu.cn/zyrz/ASIIN.htm) and note that the revised title has not yet been reflected consistently in the published documents. Therefore, the experts maintain their requirement concerning the official English translation of the EEA program title (A7).

Generally, the experts assess the criterion as partially fulfilled.

C-3. Curriculum [ASIIN 1.3]

Description of the current status:

Content and structure

According to the SAR, both programs are organized within a curriculum system consisting of a theoretical teaching system and a practical training system. The theoretical system covers humanities and social sciences, mathematics and natural sciences, engineering fundamentals, discipline-specific foundations and specialized courses. The practical training system includes in-class experiments, course projects, on-campus internships, enterprise internships and the graduation project. The curriculum systems are documented in the respective talent cultivation plans, while the semester-by-semester course arrangements are provided in Appendix 08-1-01 and Appendix 08-1-02.

The SAR states that language and general education courses are offered mainly in the first to fifth semesters. They include English, philosophy, ideological and political education, law-related components, physical education and other general education elements. Math-

ematics and natural sciences are concentrated mainly in the first three semesters and include Higher Mathematics, Linear Algebra, Probability and Mathematical Statistics, University Physics, University Physics Laboratory and Introduction to Environmental Science. Engineering fundamentals, discipline-specific foundations and specialized teaching are concentrated mainly in semesters three to six, building on courses such as Circuit Theory, Analog Electronic Technology and Digital Electronic Technology.

Practical teaching is distributed through the curriculum and becomes particularly prominent in the later semesters. The seventh and eighth semesters contain engineering practice components, and the graduation project is completed in the eighth semester. According to the SAR, graduation project topics may originate from faculty innovation and entrepreneurship projects, scientific research activities, enterprise practice projects or independently developed engineering topics. Long-term cooperation with enterprises provides recurring opportunities for introductory professional practice, production internships and other practice-oriented learning activities.

Upon completion of eight semesters, students in both programs obtain 179 Chinese credits, corresponding in the submitted curriculum documentation to 230 ECTS credits. The study plans show the distribution of modules, contact hours, practice components and ECTS credits by semester. The sequence of the curriculum is intended to enable students to develop the defined learning outcomes within the standard period of study (Appendix 08-1-01; Appendix 08-1-02).

For both programs, an objective-module matrix (appendix 07-1-01; 07-1-02) and a module description (appendix 09-1-01; 09-1-02) clarify how each course contributes to the program's intended learning outcomes. The matrix shows how the curriculum supports the achievement of learning outcomes expected from graduates. Each module is associated with specific learning outcomes, showing the correlation between course content and the program objectives.

EEA - Electrical Engineering and Automation

The module documentation for EEA shows a progression from foundational electrical engineering to power-system and automation applications. The curriculum includes, among others, Circuit Theory, Analog Electronic Technology, Digital Electronic Technology, Signal Analysis and Processing, Introduction to Electrical Engineering, Electrical Machines, Automatic Control, Microcontrollers, Power Electronics, Power System Analysis, Relay Protection, Electrical Engineering of Power Plants and High Voltage Technology. Later professional and elective components address areas such as power technology economics and management, the electricity market, programmable logic control, power system automation,

smart-grid communication, smart microgrids, new-energy generation and integrated energy systems. These theoretical components are combined with experiments, course design, internships, engineering training and the graduation project (Appendix 09-1-01).

EIE - Electronic Information Engineering

For Electronic Information Engineering, the module documentation combines mathematics and natural sciences with programming, electronics, communication and information processing. The curriculum includes, among others, College Computer Fundamentals, C and C++ programming, Electromagnetic Fields and Waves, Data Structures and Algorithms, Circuit Theory, Analog and Digital Electronic Technology, Signals and Systems, High-Frequency Electronic Circuits, Digital Signal Processing, Information Theory and Coding, Automatic Control, EDA technology, communication-related courses, embedded-system content based on Cortex-M3, Sensor and Detection Technology, Digital Image Processing, RFID, Virtual Instrumentation and Engineering Economics. Practical courses, integrated design activities and the graduation project are included alongside these modules (Appendix 09-1-02).

Student Mobility

The SAR states that CCIT has established rules for different forms of student mobility, including international exchange, industry internships and internal program transfer. The *Administrative Measures for Program Transfer for Full-Time Undergraduate Students* and the measures for credit recognition of students transferring programs define the internal procedures for changing programs and recognizing completed studies (Appendix 10-1; Appendix 10-2).

Cooperative training centers with enterprises are used for introductory professional practice, enterprise production internships and other engineering practice activities; the related industry-education cooperation agreements for the two programs are provided in Appendix 03-1 and Appendix 03-2.

For international mobility, the SAR refers to the Renewable Energy and Smart Grid Program at Nanyang Technological University in Singapore and to university arrangements for international cooperative exchange (Appendix 10-3). The EEA program was approved in 2020 to establish a cooperative education program with New Mexico State University in the United States. The university also has management measures for international exchange scholarships in Sino-foreign cooperative education.

CCIT provides the following numbers on student mobility for both programs (Appendix 10-4):

EEA - Electrical Engineering and Automation

Mobility Plan Name	Brief Description	Number of Participants (Last 5 Years)
Major Transfer	A change of student status where a student applies and is approved to transfer from their original major to another major for study on campus.	268
Exchange Abroad	Students traveling abroad to conduct academic visits and academic exchanges	2
Grade Retention	A student status management action where a student fails to meet the completion or promotion criteria for their current grade in course assessments and credit make-up within the specified study period; after school review, the student does not advance to the next grade and instead repeats the academic year with the same or a closely related major.	81
Withdrawal	Detailed withdrawal conditions are specified in the Student Status Management Regulations of Changchun Institute of Engineering.	2

EIE - Electronic Information Engineering

Mobility Plan Name	Brief Description	Number of Participants (Last 5 Years)
Major Transfer	A change of student status where a student applies and is approved to transfer from their original major to another major for study on campus.	20
Grade Retention	A student status management action where a student fails to meet the completion or promotion criteria for their current grade in course assessments and credit make-up within the specified study period; after school review, the student does not advance to the next grade and instead repeats the academic year with the same or a closely related major.	8
Withdrawal	Detailed withdrawal conditions are specified in the Student Status Management Regulations of Changchun Institute of Engineering.	2

The statistics in Appendix 10-4 records that 2 students from EEA and no students from EIE program studied abroad during the recent five-year period. The same material records internal program transfer and academic-status movements such as grade retention or withdrawal. The transfer planning information presented with these statistics indicates annual transfer capacities that are adjusted to available educational resources and program conditions (Appendix 10-4).

The program coordinators explained that CCIT had previously signed a cooperation agreement with the University of Kassel. In addition, short-term study programs at the Universities of Oxford and Cambridge had been organized through a third-party intermediary. However, these cooperation arrangements have not yet resulted in substantial student exchanges. CCIT plans to introduce bilingual courses in cooperation with a Russian partner university and is also exploring opportunities for collaboration with an Italian university.

The representative of the International Exchange Office stated that the university provides scholarships and other forms of financial support for international mobility. Nevertheless, students continue to face several barriers to studying abroad. Participation generally requires an advanced level of English and overseas study periods may conflict with students' regular academic obligations in China. Many students also prioritize preparation for recruitment examinations for the State Grid Corporation of China. Against this background, the university intends to place greater emphasis on short-term international exchange formats.

At present, CCIT enrolls 43 international students, mainly from African countries and Russia. The Civil Engineering program offers courses taught entirely in English.

Periodic Review of the Curriculum

According to the SAR, the curriculum is reviewed and revised with reference to the university's positioning, economic development needs, national and regional industrial development, feedback from employers and industry or enterprise specialists, and feedback from graduates approximately five years after graduation. The institutional framework is defined in the *Administrative Measures for Talent Cultivation Plans* and the *Guiding Opinions on the Revision and Development of Undergraduate Talent Cultivation Plans*, 2022 Edition (Appendix 02-1; Appendix 02-2).

The university follows a four-year cycle for the comprehensive revision of its talent cultivation plans. Upon completion of each implementation cycle, the educational objectives, disciplinary standards, curriculum structure, teaching approaches, and assessment standards are reviewed in light of national strategies, regional industrial development, disciplinary advancements, and international accreditation requirements. During the implementation period, annual reviews and targeted adjustments may also be carried out in response to changes in national industrial policies, economic development, and emerging industry trends.

The SAR describes the revision procedure as a research-review-optimization-implementation process. Proposed revisions and adjustments are discussed by internal and external disciplinary experts, industry and enterprise specialists, faculty members and relevant student representatives. A written statement of revision accompanies the plan. The revised plan is reviewed by the school or college, the Academic Affairs Office and the responsible vice president and is filed with the Academic Affairs Office. In addition to the four-year comprehensive cycle, localized adjustments to curriculum structure or practical components may be made on the basis of graduate feedback, industry survey data and policy changes. Expert review forms for the 2022 talent cultivation plans are provided in Appendix 02-3.

Analysis and assessment of the expert panel

Content and Structure

The expert panel examined the curriculum and found that its structure enables students to achieve the intended learning outcomes. The program design provides a coherent and comprehensive sequence of theoretical foundations, engineering applications, and practical training across eight semesters.

During the visit, alumni representatives suggested that the curriculum of EIE could be further strengthened by introducing topics such as chip design and semiconductor technology. They considered these areas relevant in view of current technological developments and the professional fields in which graduates may work. The alumni also highlighted the importance of providing students with guidance on the effective use of and interaction with artificial intelligence tools. The experts therefore recommend considering the inclusion of corresponding courses or teaching units in the curriculum.

The experts further noted that the course Analog Electronics does not explicitly cover CMOS transistors and CMOS circuits. As these topics constitute relevant foundations for the understanding and design of modern electronic systems, the experts recommend adding appropriate content on basic CMOS analog building blocks and CMOS circuits to this course.

Generally, the experts consider the program's content and structure to be consistent with ASIIN's Subject-Specific Criteria for Technical Committee 02 and to support the intended learning outcomes effectively.

Student Mobility

Overall, the experts find that the program provides a basis for student mobility through existing institutional regulations and exchange opportunities. The panel acknowledges the measures already taken to promote international exchange. At the same time, student participation in study-abroad activities is currently limited. Therefore, the experts encourage CCIT to take further measures to motivate and support more students to participate in international mobility, in order to broaden their academic and professional perspectives.

During the on-site discussions, the experts learned that some students were concerned about their English proficiency and did not feel sufficiently confident to study abroad. Against this background, the panel recommends further strengthening students' English-language competence. This could be supported, for example, by offering more professionally relevant courses in English or in bilingual format. During the visit, EIE students reported that they currently have fewer opportunities for international exchange than students enrolled in the EEA program, which offers exchange possibilities with partner universities in the United States and Singapore. The experts consider international mobility valuable for broadening students' academic, intercultural, and professional perspectives. They therefore recommend expanding the available exchange opportunities and encouraging both students and faculty members from both programs to participate in study, teaching, and academic exchange activities abroad.

Industry representatives and students further stated that the current duration of internships provides only limited time for students to become familiar with professional processes and assume more substantial tasks. A longer placement would allow students to gain deeper insight into workplace structures and develop professional independence. The experts therefore recommend extending the duration of internships to approximately three to four months in order to provide more substantial practical experience and strengthen students' readiness for employment.

Furthermore, as mentioned in C-1, the experts noted that the official English website has been created specifically for the accreditation process and does not contain general information, including admission requirements and application procedures for international students. This inadequacy may undermine the university's international profile and make it less accessible to prospective students and other stakeholders.

Periodic Review of the Curriculum

The experts acknowledge that the university has established a structured process for curriculum development and periodic review. The curricula are reviewed regularly with the involvement of faculty members, industry representatives, and alumni, while minor adjustments may be introduced annually. The panel further confirms that formal mechanisms are in place for updating course syllabi and module content in response to disciplinary developments, stakeholder feedback, and emerging technological requirements.

However, the curricula submitted for the present assessment date from 2022, whereas revised 2026 versions are reportedly being finalized and are expected to be officially published shortly. To ensure that the accreditation assessment is based on the current and formally approved curricula, the experts require the university to submit the officially published 2026 curricula once they become available.

Final assessment of the experts after the statement of the Higher Education Institution regarding criterion 1.3

For both programs:

See C-1 concerning the English-language website to support the internationalization, the experts maintain the recommendation (see section F, E1).

In its statement, the University did not address the recommendations concerning international mobility (E2), the improvement of students' English proficiency (E3) and. the duration of the internship (E4) Therefore, the experts maintain their recommendations.

The university has submitted the 2026 curricula as well as the revised module matrices for both programs. However, they note that the 2026 curricula are not yet available on the

university's official website (https://dxxy.ccit.edu.cn/rcpy/pyfa.htm), therefore, the experts formulate the requirement (see section F, A1). The experts reviewed the documents and identified the following curricular adaptations:

The 2026 EEA curriculum was updated mainly to reflect developments in the new power system and emerging technologies. New courses include General Literacy and Practice of Artificial Intelligence, Fault Diagnosis and Condition Monitoring of Electrical Equipment, Applications of Artificial Intelligence in Electrical Engineering, Comprehensive Practice in Electrical Safety and Emergency Rescue, National Security Education, Artistic Experience and Expression, and Aesthetic Education in Universities. Courses considered outdated or overlapping, including Teleoperation and Dispatching Automation and Application of MATLAB in Electrical Engineering Practice, were removed. Several practical components, including Power System Relay Protection design and experiments as well as integrated power-system and high-voltage experiments, were consolidated into the new Comprehensive Practice of Electrical Engineering course.

The 2026 EIE curriculum was revised to strengthen its orientation towards intelligent embedded systems, hardware development and embedded AI. Three new courses were introduced: Artificial Intelligence and Embedded Applications, Intelligent Sensing Technology and Applications, and Intelligent Instrument System Design. In contrast, Java Language Programming, Sensor Detection Technology, and Android Application Development were removed to sharpen the program's hardware and embedded-system profile. In addition, several courses and practical components were revised, merged or updated, including Microcontroller Principles and Applications, Data Structures and Algorithms, EDA Technology and Application, Digital Image Processing, and Course Design for Microcontroller System Applications. Enterprise resources were also integrated more strongly into practical teaching.

For EIE program:

The experts acknowledge that the revised 2026 EIE curriculum provides a suitable foundation for further development in the area of chip design. In particular, the existing teaching in PCB design and FPGA/CPLD-based digital system design provides relevant prior knowledge on which an introductory elective course in Chip Design could build. However, the revised curriculum does not yet include an elective course addressing chip design. With regard to semiconductor technology, the experts acknowledge that Analog Electronic Technology already covers field-effect transistors and components used in integrated circuits. In addition, The reference book in the module descriptions addresses MOS devices and refers to FET-based implementations of current sources, active loads and differential pairs, as well as selected CMOS applications. However, the module descriptions do not clearly indicate the extent and depth to which these topics are actually covered in teaching. The

experts therefore consider (E7) partially addressed but not yet fully fulfilled. In particular, the introduction of an elective course on Chip Design remains outstanding, while the coverage of semiconductor fundamentals should be made more explicit and sufficiently integrated into Analog Electronic Technology. The experts consequently maintain the recommendation (see section F, E7).

Furthermore, the experts acknowledge that the course Analog Electronic Technology already introduces JFET and MOS devices as well as basic CMOS concepts. The reference book in the module descriptions also addresses current-source circuits, active loads and differential pairs, mainly on the basis of BJT technology, while indicating that corresponding circuits can also be implemented using FETs. It furthermore contains selected examples of CMOS circuits. However, the module descriptions do not clearly specify the extent and depth to which CMOS analog circuit techniques are actually covered in teaching. The experts emphasize that introducing MOSFETs and basic CMOS concepts is a necessary foundation but does not by itself ensure systematic coverage of complementary MOS amplifier stages and fundamental CMOS analog building blocks, such as current mirrors, differential pairs and active loads. These circuit techniques constitute distinct teaching content within analog electronics. Likewise, digital-design content based on FPGA/Verilog or microcontrollers does not substitute for CMOS analog circuit design. The experts therefore maintain the recommendation (see section F, E8), with the aim of strengthening the systematic treatment of CMOS analog circuits within Analog Electronic Technology.

Generally, the experts assess the criterion as partially fulfilled.

C-4. Admission requirements [ASIIN 1.4]

Description of the current status:

According to the SAR, domestic applicants for undergraduate study at CCIT are admitted through the National College Entrance Examination (NCEE, also called Gaokao) or the unified college entrance examinations organized in specific provinces and municipalities. In the Chinese admissions system, entry to universities is determined by minimum admission scores and provincial ranking positions, which serve as indicators of the selectivity of a degree program. Applicants must comply with the relevant national legal requirements, demonstrate the required standards of conduct, hold a senior secondary school graduation certificate or an equivalent qualification, and meet the physical examination requirements stipulated by the national authorities and the university.

Admission work follows the principles of fair competition, impartial selection and transparency. Admission decisions are made within the national higher education admission framework and take account of candidates' examination results and the applicable admission rules. The enrollment process is subject to oversight by the university's discipline inspection and supervisory authorities, provincial admission examination authorities, the media and the public. The university formulates its Enrollment Charter in accordance with the Education Law of the People's Republic of China, the Higher Education Law and related regulations. The enrollment system further includes admission brochures and student enrollment registration rules (Appendices 11-1 to 11-5).

The annual enrollment plan is developed with reference to the university's cultivation objectives, educational conditions, employment outcomes, the quality and distribution of applicants in the provinces and regional policies. After candidates reach the relevant admission cut-off score, provincial admission authorities submit applications according to the applicable rules. Major placement is primarily based on application scores. The university applies the national *Guidance on Physical Examination for General Higher Education Admissions*, including the provisions relevant to color blindness and color vision deficiency.

The statistics in Appendix 12-1 report admitted students in relation to available seats for the most recent five years.

Electrical Engineering and Automation1

Year[1]	Applicants	Available Seats	Admitted Students	Admission Rate (%)[2]
2021	71	71	68	96%
2022	70	70	69	98.6%
2023	63	63	63	100%
2024	98	98	95	97%
2025	287	287	287	100%

Electronic Information Engineering2

Year[3]	Applicants	Available Seats	Admitted Students	Admission Rate (%)[4]
2021	81	80	77	96.3%
2022	84	87	82	94.3%
2023	84	84	79	94.1%
2024	84	84	81	96.4%
2025	94	92	87	94.6%

Admission information is published through official channels, including the university's Admissions Information Website and the *Ministry of Education's Sunshine College Entrance Examination Platform*. The SAR states that the enrollment plan is published by the provincial admission authorities and that admission results are announced after completion of

the admission process. Inquiries and appeals relating to enrollment are processed through the university's established channels. Both programs currently do not admit international students.

Analysis and assessment of the expert panel

The experts acknowledge that, within the national admission system, applications are processed centrally by the provincial authorities and places are allocated primarily according to applicants' examination scores and stated preferences. Consequently, the university does not conduct a separate selection procedure of its own. The panel recognizes that this admission system is aligned with national higher education regulations and promotes transparency and fairness through standardized examination and allocation procedures. The submitted documents confirm that the admission process is formally regulated and consistently implemented. The national entrance examinations are intended to ensure that admitted students possess the foundational knowledge and competences required to undertake and successfully complete the EEA and EIE programs.

During the discussion with the program coordinators, the experts learned that the admission restrictions relating to color blindness and color vision deficiency do not apply to either program. Only applicants with certain serious medical conditions, including severe heart disease, congenital heart disease, severe asthma, bronchiectasis, or other conditions diagnosed by a hospital at Grade II level or above, may not be eligible for admission. The university further explained that some public areas are equipped with accessibility facilities, such as elevators.

Furthermore, the experts learned that students may receive academic credits for recognised innovation and entrepreneurship activities. The university further stated that credit recognition arrangements are in place with Changchun University of Technology and Northeast Electric Power University, allowing students to have credits acquired at these institutions recognised under the respective cooperation arrangements.

However, the submitted documentation did not include the relevant institutional regulations for recognizing undergraduate students' study abroad periods as well as externally achieved qualifications. The experts were unable to verify the applicable recognition criteria or the procedures available to students for appealing recognition decisions. The university is therefore required to submit the formal regulation and supporting documents governing the recognition of externally acquired qualifications and credits.

Final assessment of the experts after the statement of the Higher Education Institution regarding criterion 1.4

For both programs:

In response to the provision of recognition regulations, the university states that formal regulations and supporting documents governing the recognition of externally acquired qualifications and credits are currently under development. As no corresponding documents have yet been submitted, the experts are unable to verify the implementation of a formal recognition procedure. The experts therefore maintain the requirement (see section F, A2).

Generally, the experts assess the criterion as partially fulfilled.

C-5. Workload and credits [ASIIN 1.5]

Description of the current status:

According to the SAR, the Chinese credit system at CCIT is primarily based on contact time. Sixteen class hours of theoretical teaching correspond to one Chinese credit, and one week of practical teaching likewise corresponds to one Chinese credit. The current talent cultivation plans require 179 Chinese credits for each of the two four-year bachelor programs and present this curriculum as corresponding to 230 ECTS credits.

The SAR describes the 179 Chinese credits as comprising 27 credits in mathematics and natural sciences, 59 credits in engineering and program-related courses, 46 credits in engineering practice and the graduation project, 39 credits in humanities and social sciences, and 8 credits in second-classroom quality-development activities. The detailed semester-by-semester allocation of contact credits, course hours and ECTS credits is provided in the study plans for the two programs (Appendix 08-1-01; Appendix 08-1-02).

For the ECTS calculation, the SAR treats total student workload as the sum of contact hours and self-study time. Self-study includes activities such as pre-class preparation, post-class review, assignments, online tutoring, lectures, design projects, quizzes, project reports, literature reviews, debugging tests and social practice. The SAR generally uses 30 hours of total workload for one ECTS credit and states that semester workloads are normally kept around 30 ECTS credits. The workload verification sheets for both programs document 3,218 contact hours and 3,702 self-study hours over eight semesters, giving a total reported workload of 6,920 hours and 230 ECTS credits (Appendix 14-2-01; Appendix 14-2-02).

The Appendices 14-2-01 and 14-2-02 identify for each course the Chinese credit value, contact hours, theory and practice hours where applicable, ECTS credits, self-study hours and total workload.

EEA - Electrical Engineering and Automation

Course category	Contact hours	Self-study hours	Total Academic Hours
General Education Courses in Humanities and Social Sciences	778	530	1248
Mathematics and Natural Science Courses	432	378	810
Engineering foundation courses	336	474	810
Professional basic courses	288	462	750
Professional courses	304	536	840
Engineering Practice and Graduation Design (Thesis)	936	1224	2160
Second-class curriculum for quality expansion and development	144	98	242
Total	3218	3702	6920

EIE - Electronic Information Engineering

Table 1-10 Statistical Data of All Class Hours in Four Years of Electronic Information Engineering

Course category	Contact hours	Self-study hours	Total class hours
General Education Courses in Humanities and Social Sciences	762	516	1278
Mathematics and natural science courses	432	378	810
Engineering Fundamentals Courses	400	650	1050
Professional Fundamentals Courses	248	397	645
Specialized Courses	296	454	750
Engineering Practice and Graduation Design (Thesis)	936	1209	2145
Second Classroom Competence Development Courses	144	98	242
Total	3218	3702	6920

The submitted documents (Appendix 14) provide examples of planned workload, but there is only limited evidence of actual workload verification. During the discussions, the program coordinators confirmed that learning activities conducted through online platforms such as Xuexitong generate usage and participation data that can be used to monitor students' online learning. For offline learning activities, however, the allocated self-study hours are currently estimated mainly on the basis of the scope and complexity of the assigned tasks

and the teaching experience of the responsible lecturers. The university has not yet conducted a dedicated evaluation of the actual time students spend on self-study.

The allocation of ECTS per semester is presented as follows:

EEA - Electrical Engineering and Automation

Semester	1	2	3	4	5	6	7	8	Total
ECTS	25.25	28.75	29.75	29.80	29.25	29.30	28.75	29.30	230.15

EIE - Electronic Information Engineering

Semester	1	2	3	4	5	6	7	8	Total
ECTS	28.25	30.75	27.75	29.25	29.75	28.75	28.75	26.75	230

The separate ECTS conversion documentation further defines one ECTS credit as approximately 25 to 30 hours of student workload and differentiates the conversion according to course category. Humanities and general education as well as mathematics and natural sciences are generally converted at one Chinese credit to one ECTS credit, while engineering practice and the graduation project use higher ECTS conversion ratios; specific rules are also defined for physical education, military skills, military theory and career guidance. For externally completed studies, the conversion procedure requires supporting course documentation and academic records, followed by an equivalence review and documentation of the conversion result. Grade conversion categories from A to F are also defined in the submitted regulations (Appendix 15-1-01; Appendix 15-1-02).

The standard period of study is four years. Under special circumstances, the study period may be extended by up to two additional years. Students who complete the curriculum, obtain the required credits and pass the required courses within the permitted study period receive a graduation certificate. The regulations on bachelor degree conferral specify, among other requirements, a cumulative grade point average of at least 2.0 for degree eligibility (Appendix 02-4; Appendix 21-1-01).

Appendix 16-1 includes the following statistics on academic success (Cohort Statistics).

EEA - Electrical Engineering and Automation

Cohort Year[2]	Total Enrolled[3]	Graduated on Time[4]	Graduated Late[5]	Still Enrolled[6]	Dropped Out[7]
2021	194	183	11	0	0
2022	252	229	23	0	0
2023	217	215	2	0	0
2024	135	111	24	3	0
2025	149	128	21	36	0

Average Graduation time (in semesters)[8]: 8

EIE- Electronic Information Engineering

Cohort Year	Total Enrolled	Graduated on Time	Graduated Late	Still Enrolled	Dropped Out
2016	88	86	2	0	0
2017	86	86	0	0	
2018	79	79	0	0	0
2019	82	81	1	0	0
2020	70	68	2	0	0
2021	86	86	0	0	0
2022	80	79	1	0	0
2023	81	80	1	0	0
2024	82	81	1	1	0
2025	78	76	2	2	0

Average Graduation time (in semesters): 8

Appendix 16-1 records that it takes an average graduation time of eight semesters to graduate from both bachelor programs. Students reported that the workload is manageable within the standard four-year study period. The on-time graduation rate of 91.4% for EEA and 98,8% for EIE further reflects the feasibility of completing the program within the prescribed timeframe.

Analysis and assessment of the expert panel

The experts learned during the on-site interview with student representatives that students were informed about the workload distribution through the module handbook and course syllabi. Overall, the expert panel notes that the existing Chinese credit framework ensures internal consistency and compliance with national higher education standards, enabling students to complete their studies within the prescribed duration.

However, Appendix 16-1 reports no dropouts for the listed cohorts, whereas the mobility table of Appendix 10-4 records two withdrawals in each program. To clarify this inconsistency, the experts request that the university resubmit the cohort statistics for both programs or provide a clear explanation of the differing figures.

The expert panel understands that the workload and credit system of both programs are based on the national framework for Chinese higher education, where credits are calcu-

lated from contact hours only. The experts find that the methodology used to convert Chinese credits into ECTS credits is not sufficiently clear or consistent. The university should apply a transparent and uniform conversion basis, with one ECTS credit corresponding to a fixed workload value within the commonly accepted range of 25 to 30 hours. This conversion factor should not vary from one course to another. A consistent institutional approach is necessary to ensure comparability and transparency of workload calculations for both students and teaching staff across the bachelor program.

The panel acknowledges that the workload is distributed even across semesters, ranging from a of minimum 25.25 ECTS in the first semester to a maximum of 29,80 ECTS in the fourth semester for EEA and a of minimum 26.75 ECTS in the eighth semester to a maximum of 29,75 ECTS in the fifth semester for EIE. At the same time, the students confirmed that the workload is generally manageable and allows sufficient time for self-study and extracurricular activities.

The experts acknowledge that the use of platform-generated data provides an initial basis for monitoring the student workload. They also recognize that lecturer estimates and task-based calculations are appropriate starting points for the initial allocation of workload. However, these approaches do not provide sufficient evidence that the allocated self-study hours correspond to the actual workload experienced by students, particularly for offline assignments, preparation, review and project work. Moreover, online activity data do not necessarily indicate the amount of effective learning time or capture the full workload associated with a module.

The experts further identify internal inconsistencies in the workload calculation for *Principles and Applications of Single-Chip Microcontrollers (Appendix 14-1-02)*. The comparison is based on the module-level workload summary and the subsequent chapter-by-chapter workload allocation contained in the same document.

In the module overview, the course is assigned a total workload of 120 hours, comprising 48 contact hours and 72 self-study hours, corresponding to 4 ECTS credits. However, the detailed workload breakdown does not consistently reproduce these figures. The theoretical section is stated to comprise 36 contact hours and 48 self-study hours, while the self-study hours allocated individually to Chapters 1 to 8 add up to 66 hours, rather than 48 hours. In addition, the experimental section is described as comprising 16 contact hours and 24 self-study hours, whereas the detailed entry for Chapter 9 specifies only 12 contact hours and 24 self-study hours.

Consequently, the totals differ depending on which part of the document is used. Based on the section-level figures, the workload amounts to 124 hours in total, consisting of 52 contact hours and 72 self-study hours. Based on the chapter-level allocations, it amounts to

138 hours, consisting of 48 contact hours and 90 self-study hours. Neither calculation corresponds to the module overview of 120 hours. The experts therefore consider the workload calculation insufficiently transparent and require the university to reconcile the module descriptions so that the contact hours, self-study hours, total workload and ECTS credits are fully consistent.

The experts therefore conclude that the current approach is not yet sufficient to demonstrate the systematic verification of actual student workload required under ASIIN Criterion 1.5. The university should establish a regular workload evaluation mechanism that combines available learning-platform data with direct student feedback, for example through workload surveys, time records, interviews or focus groups. The results should be analysed at course and program level and used to review and, where necessary, adjust the estimated self-study hours and corresponding ECTS allocation.

Final assessment of the experts after the statement of the Higher Education Institution regarding criterion 1.5

For both programs:

The university has revised the module descriptions for both programs. According to its statement, the ECTS credit conversion standards are currently being revised with the aim of establishing a uniform conversion basis for all courses. Consequently, the ECTS credits in the 2026 curricula are still calculated according to the previous conversion approach. For EEA, the total credits have been reduced from 179 Chinese credits / 230 ECTS credits to 166 Chinese credits / 215 ECTS credits. For EIE, the total credits have been reduced from 179 Chinese credits / 230 ECTS credits to 165 Chinese credits / 212 ECTS credits.

The experts reviewed the revised documents and note that a uniform conversion basis has not yet been applied consistently to the calculation of ECTS credits. As the revised conversion methodology is still under development and its implementation cannot yet be verified, the experts maintain the requirements (see section F, A3, A4).

Generally, the experts consider the criterion to be partially fulfilled.

C-6. Didactics and teaching methodology [ASIIN 1.6]

Description of the current status:

According to the SAR, the university follows a student-centered teaching approach that combines physical and virtual learning environments with online and offline instruction. Platforms such as Chaoxing Learning Platform, Zhihuishu and University MOOCs support blended teaching. Smart classrooms, knowledge graph-based course systems, online tests,

real-time question-and-answer functions, recorded materials and other digital resources are used for course delivery and independent learning.

Teaching methods vary by course type. Language and general education modules mainly use case-based teaching, problem-oriented learning and flipped classrooms. Specialized courses apply project-based learning, seminars, case analysis and practical tasks. The academic mentoring system provides individualized guidance. In the blended model, pre-class activities support knowledge acquisition and basic assessment, classroom sessions focus on key concepts, competence development and higher-order thinking, and post-class resources provide literature, engineering cases, assignments and tutoring materials.

For the most recent three-year period, the school reports 3 national first-class undergraduate courses, 7 university-level first-class courses, 12 curriculum-based ideological and political education demonstration courses, 14 university-enterprise collaborative courses, 10 blended-teaching demonstration courses and 12 innovation and entrepreneurship integrated course-development projects.

Research capacity and innovation awareness are developed progressively throughout the program. The relevant framework is set out in the Compilation of Management Regulations on Innovation and Entrepreneurship for College Students (Appendix 02-10). First-year students attend academic lectures, while second- and third-year students may participate in innovation and entrepreneurship projects and faculty-led research. In the fourth year, these competences are further developed through practical training and the graduation project, including projects linked to research teams and enterprise practice.

Students must obtain at least 2 innovation and entrepreneurship credits before graduation. Over the most recent three-year period, the SAR reports 224 awards at provincial level or above, 46 national or provincial innovation and entrepreneurship projects, 21 student papers and 21 patents or software copyrights (Appendices 13-3 to 13-6).

Analysis and assessment of the expert panel

The expert panel finds that both programs use a broad range of teaching and learning methods that support the intended learning outcomes. Classroom teaching, practical tasks and digital learning are combined through platforms such as Chaoxing, Zhihuishu and University MOOCs. Case-based teaching, problem-oriented learning, flipped classrooms, project-based learning and seminars are applied according to course type, while the academic mentoring system provides individualized guidance.

The experts also acknowledge the structured blended-learning model, in which pre-class activities support knowledge acquisition, classroom sessions focus on complex content and

competence development, and post-class resources reinforce learning. Research and innovation competences are developed progressively through academic lectures, innovation projects, faculty-led research, practical training and graduation projects.

Industry cooperation and research platforms further strengthen practice-oriented learning. University-enterprise courses and facilities such as the cooperation base with SPIC Jilin Electric Power Co., Ltd. expose students to professional engineering contexts.

Overall, the expert panel considers the teaching and learning methods appropriately differentiated, practice-oriented and suitable for achieving the intended learning outcomes.

Final assessment of the experts after the statement of the Higher Education Institution regarding criterion 1.6

As the university did not address this criterion in its statement, the experts confirm their previous evaluations and consider the criterion to be fully fulfilled.

C-7. Exams: System, concept and organisation [ASIIN 2]

Description of the current status:

According to the SAR, examination procedures are governed by the university's Implementation Measures for Examinations. Students must complete the assessments specified in the talent cultivation plan and obtain passing grades to receive the corresponding credits (Appendix 17-1). Innovation and entrepreneurship achievements may also be assessed through competitions, projects and open-ended design activities. Assessment requirements are defined in the course syllabus and communicated through the academic management system, course websites and instructors. Students receive information on assessment formats, the weighting of individual components and consultation channels at the beginning of each semester (Appendix 17-2).

Formative assessment may include participation, assignments, quizzes, flipped-classroom activities and experiments. The final assessment usually takes the form of a 120-minute written examination. Practical modules use formats such as process assessment, hands-on tasks, reports, technical documentation, presentations and oral defenses.

Grades are recorded on a percentage scale, with 60 as the passing mark. Results are entered into the academic affairs system and can be accessed by students. Course teams subsequently analyse the achievement of course objectives and identify possible adjustments to course content, teaching methods and assessment. A detailed example for *Power System*

Analysis is provided in Appendix 22-2-01. The student status regulations also define the conversion of percentage grades into grade points (Appendix 02-8).

Examination questions are prepared on the basis of the approved syllabus and are intended to align with the course objectives, content and assessment methods. Final examinations follow standardized procedures covering room preparation, identity checks, communication of rules, invigilation, examination records, collective grading and cross-review (Appendices 17-5 and 17-6). Students may request a review of their grade within the stipulated period.

Students who fail a theoretical course may take a make-up examination at the beginning of the following semester. Practical courses must be retaken if failed. Students who fail the theoretical course again after the make-up examination must also retake it. A passed make-up examination is recorded as 60. Examination misconduct is handled under the applicable regulations according to the nature and severity of the violation.

The graduation project comprises proposal review, mid-term inspection and final defense. Its assessment considers engineering problem-solving, technical documentation, project outcomes and innovation.

The scoring breakdown is as follows (Appendix 17-3):

- 35% from the supervisor,
- 15% from a second reviewer,
- 50% from the oral defense.

Analysis and assessment of the expert panel

The experts reviewed a representative selection of examination papers and bachelor's theses from both programs. Overall, the examinations demonstrate that an assessment system is in place and that students are generally able to achieve the intended learning outcomes at EQF Level 6.

For the EEA program, the submitted examination samples are generally of a good standard. The examinations include calculation-based tasks and require students to apply engineering principles to solve technical problems. In contrast, the expert panel observed that the examination samples from the EIE program rely predominantly on the reproduction of factual knowledge. They contain comparatively few calculation-based, design-oriented, or problem-solving questions that would allow students to demonstrate analytical thinking and the integrated application of knowledge and skills. The experts therefore consider that the assessment formats of the EIE program should be further developed to better reflect the intended learning outcomes.

The experts regard the bachelor's thesis as the final capstone of the program, assessing students' ability to work independently and integrate theoretical and practical knowledge. The panel acknowledges the comprehensive supervision provided to students in both programs, including regular weekly meetings with academic supervisors. However, the submitted thesis samples from the EIE program are largely implementation-oriented and, in several cases, resemble technical user manuals rather than scientific studies. They focus primarily on describing implementation processes and reporting results, while providing only limited scientific analysis and reflection. In particular, the experts observed insufficient justification of design choices, parameter selection and technical solutions. They expect a more systematic discussion of alternative approaches, the rationale for selected solutions, and the associated advantages, disadvantages and potential trade-offs. The panel further noted that the thesis defense questions in the EIE program are comparatively simple and provide limited opportunities for students to demonstrate critical thinking, scientific reasoning and independent decision-making.

For both programs, the experts consider that thesis assessment should place greater emphasis on students' ability to demonstrate independent scientific judgement, critical thinking and autonomous decision-making. The panel also identifies room for improvement in the consistent application of academic writing conventions, including proper citation, referencing and the use of standardized formatting templates

Final assessment of the experts after the statement of the Higher Education Institution regarding criterion 2.0

As the University did not address the recommendations concerning the quality of EIE graduation theses (A8), the academic writing conventions for both programs (E5) or improvement of examination design for EIE (E9) in its statement, the experts maintain the requirement (see section F, A8) and the recommendations (see section F, E5, E9).

Generally, the experts assess the criterion as partially fulfilled.

C-8. Resources [ASIIN 3]

Description of the current status:

Staff and Staff Development [ASIIN 3.1]

According to the SAR, the EEA program employs 38 full-time teachers, including 10 professors and 11 associate professors. Twelve faculty members hold doctoral degrees, 12 are master's supervisors, and more than 70% are classified as dual-qualified teachers with engineering practice experience. More than ten have overseas study experience (Appendix

19-1-01). The Electronic Information Engineering program has 15 full-time teachers, including 2 professors, 8 associate professors and 5 lecturers. Senior academic staff account for 66.7%, five faculty members hold doctoral degrees, four are master's supervisors. Three teachers completed visiting scholarships of at least one year at the University of Auckland, the University of Georgia and Aalborg University (Appendix 19-1-02).

During the past five years, faculty members contributed to 3 national and 8 provincial first-class undergraduate courses, 7 provincial golden courses, published 5 textbooks, completed numerous teaching-reform projects, published 19 education-related papers, obtained 25 intellectual property rights (including 9 invention patents), and produced more than 50 academic papers, 32 of which are indexed by SCI or EI.

Faculty workload and appointments are governed by institutional regulations covering teaching workload, performance, course development and student supervision (Appendices 02-12–02-14). Staff development is coordinated through the Center for Faculty Development, which offers teaching training, workshops, teaching forums and expert lectures. Newly appointed teachers complete mandatory induction training before independently teaching undergraduate courses; 11 young teachers participated during the last three years (Appendix 02-16). A mentorship system supports young faculty members through guidance from senior academics, while additional professional development is provided through measures for young backbone teachers and international visiting-scholar programs. Six faculty members completed overseas visits in the United Kingdom, Australia, Singapore and France during the last three years (Appendices 02-15, 02-17, 19-1). Institutional HR development policies are provided in Appendix 20.

Student support and student services [ASIIN 3.2]

According to the SAR, teaching organization and student support are coordinated by the Academic Affairs Office, SEIE, academic departments and student-affairs units. Counselors are responsible for academic advising, student management, career planning, mental health support and employment guidance. All counselors hold at least a master's degree and receive both pre-service and continuing professional training.

Student support combines counselors, homeroom teachers and undergraduate tutors. Homeroom teachers support each class, while the tutorial system provides guidance on program orientation, course selection, academic development, research, innovation, practical training and graduation projects. Academic progress is monitored through an early-warning system. Students who fall below defined credit thresholds receive targeted support involving counselors, homeroom teachers, parents and peers, together with individual consultations and follow-up measures.

Financial support is provided through scholarships, grants and aid funds, including 22 institutional funds, the Education Foundation, the Napu International Education Award Fund, the Alumni Bayuntao Scholarship, and national and provincial scholarship schemes (Appendix 01-1).

Mental health services include psychological screening, counseling, crisis intervention and thematic activities. Campus services are supported through the One-Card Smart Campus System, integrating identification, library services, access control and campus payments.

Innovation and entrepreneurship are supported through institutional regulations, the College of Innovation and Entrepreneurship Education and dedicated practice centers. During the last three years, more than 2,000 students participated in 450 innovation projects, winning 523 national and 2,086 provincial awards.

Funds and equipment [ASIIN 3.3]

According to the SAR, both programs share the experimental and practical teaching resources of the School of Electrical and Information Engineering. Over the most recent three years, the School reported tuition income of approximately RMB 21.18 million (approx. EUR 2.69 million), research funding of RMB 24.0 million (approx. EUR 3.05 million), and annual institutional budgets between RMB 572,000 (approx. EUR 72,600) and RMB 899,000 (approx. EUR 114,100). Expenditure covered internships, graduation projects, teaching research, laboratory construction, digital teaching resources, faculty development, student support and quality assurance. Laboratory construction accounted for the largest investment, totalling in RMB 4.7 million (approx. EUR 596,400), complemented by continuous investment in internships, curriculum development and quality assurance.

Both programs use shared experimental teaching facilities, including the General Physics Experiment Teaching Center, the Computer Fundamentals Experiment Teaching Center and the Engineering Training Center, providing more than 1,600 experimental instruments, approximately 600 computers, and facilities covering 7,775 m² with equipment valued at RMB 30 million (approx. EUR 3.81 million). In addition, SEIE operates 34 specialised laboratories covering 4,042 m² with equipment valued at over RMB 60 million (approx. EUR 7.61 million). Practical training is further supported by cooperation with 22 enterprises and seven off-campus internship bases (Appendices 03-1 and 03-2). Equipment management, laboratory operation and safety are regulated through institutional policies on asset management, experimental teaching, equipment maintenance and laboratory safety (Appendices 02-9, 02-18, 02-19 and 02-21).

The university library comprises two branches with 26,600 m², 4,445 reading seats, and more than 5.28 million physical and electronic resources. Subject-specific collections include approximately 321,000 Chinese books, over 200,000 electronic books and around 1,800 foreign-language electronic journals. Electronic resources include CNKI, Wanfang, EI Compendex and Web of Science. Students also have access to cloud laboratories, 563 computers, online learning platforms and a dual 10 Gbps campus backbone network.

Analysis and assessment of the expert panel

Staff and Staff Development [ASIIN 3.1]

The expert panel recognizes the faculty's solid academic qualifications and strong commitment to teaching and research. Both programs are supported by a balanced team of professors, associate professors and lecturers. The panel acknowledges that many faculty members possess engineering practice experience and that several have completed overseas study or visiting-scholar activities. The university provides a structured staff development system through the Center for Faculty Development, including induction training, mentoring for young academics, pedagogical training and opportunities for international academic exchange.

During the interviews, the expert panel learned that newly recruited teachers participate in a structured induction program and receive guidance from experienced academic mentors. Regular workshops, teaching forums and expert lectures further support the continuous development of teaching and professional competences. Furthermore, the experts learned that both programs operate a comprehensive academic mentoring system. Each faculty member supervises approximately eight students throughout the 4 year-study. The mentoring includes regular group meetings, laboratory supervision and continuous academic guidance. The faculty explained that the formal teaching load amounts to approximately 160 teaching hours per year. In practice, however, the actual workload is around 400 hours annually, while supervision of bachelor theses, mentoring activities and other teaching-related responsibilities are taken into account.

At the same time, the panel notes that faculty members combine teaching, research and student supervision responsibilities. Based on the submitted staff data, the student-to-faculty ratio is approximately **22.5:1** in the EIE program (15 faculty members for 338 students) and **21.6:1** in the EEA program (38 faculty members for 819 students). The experts gained the impression that the current staffing levels result in a relatively high workload. The experts recommend that the university develop and implement a targeted recruitment plan for additional qualified academic staff to ensure sufficient teaching and supervision capacity. The plan should take into account the current student-to-staff ratios, the actual workload arising from teaching, student mentoring and bachelor’s thesis supervision, as well as

projected student numbers, in order to ensure the sustainable delivery and further development of both programs.

Overall, the panel concludes that the qualifications and commitment of the teaching staff are appropriate for successful program delivery. The University's staff development system is comprehensive, while additional academic staff would further support the sustainable development of both programs.

Student Support and Student Services [ASIIN 3.2]

The expert panel notes that CCIT offers well-structured student support services encompassing academic guidance, psychological counseling, and career assistance. These resources are accessible through multiple channels, including the student affairs department, department of academic affairs, and the student counselor system. Students are provided with personalized guidance on study planning, academic performance, and career development.

Feedback from students confirms that these support services are easily accessible, and the students expressed full satisfaction with the assistance provided by faculty and the university. The panel concludes that the student support and advisory framework is not only well-organized and effective in practice but also aligns with student expectations.

Funds and Equipment [ASIIN 3.3]

The experts confirm that the University provides a stable financial basis for the two programs. The submitted financial data indicate continuous investment in teaching, laboratory construction, curriculum development, internships, faculty development and quality assurance over the past three years. The experts also note the substantial research funding available to SEIE, which supports the further development of teaching and research activities.

During the on-site visit, the expert panel inspected the facilities and laboratories and gained the impression that they are generally well maintained and appropriately equipped for achieving the intended learning outcomes. The experts also acknowledge the library resources, modern digital learning infrastructure and access to major scientific databases.

Overall, the panel concludes that the financial and infrastructural resources are sufficient to ensure the delivery and development of both programs. The available facilities and equipment effectively support the achievement of the intended learning outcomes and provide an appropriate environment for teaching, research and practical training.

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

For both programs:

As the university did not address the recommendation concerning the development of a targeted recruitment plan to ensure sufficient teaching and supervision capacity in its statement, the experts maintain the respective recommendation (see section F, E6).

Generally, the experts assess the criterion as substantially fulfilled.

C-9. Quality management: Quality assurance and development [ASIIN 5]

Description of the current status:

Quality management structure

According to the SAR, the quality management system is based on the principles of student-centered education, outcome orientation and continuous improvement. It comprises five interrelated components: decision-making for undergraduate teaching, teaching management, support for teaching conditions, teaching quality monitoring and evaluation, and quality-information feedback with continuous improvement. Quality assurance combines internal and external as well as routine and special evaluation activities, covering educational objectives, curriculum design, course-objective attainment, disciplinary-standard attainment, teaching quality, practical training, examinations and student learning outcomes.

Internal quality assurance is organized at university, school and department levels. The Teaching Quality Monitoring and Assurance Measures define twelve monitored areas, including curriculum and syllabus revision, textbook selection, theoretical and practical teaching, examinations, internships, graduation projects and student guidance (Appendix 02-5). At university level, quality management is coordinated by the Vice President for Academic Affairs, the Academic Affairs Office, the Teaching Quality Evaluation Center and the University Teaching Supervision Group. Schools, departments and course coordinators are responsible for implementing teaching activities, monitoring quality and collecting feedback from teachers and students.

Monitoring and evaluation mechanisms

According to the SAR, routine quality monitoring includes teaching inspections, classroom supervision, student teaching evaluations, graduate surveys and feedback from student information officers. Comprehensive inspections are conducted at the beginning, middle and

end of each semester. Additional monitoring activities include program and course evaluations, laboratory assessments, reviews of teaching documentation, student achievement analysis and graduate tracking. External quality assurance is supported through engineering education accreditation, Ministry of Education reviews, employer feedback, alumni surveys and exchanges with comparable programs. Academic progress, enrollment and graduation are monitored in accordance with the talent cultivation plans and student status regulations.

Following each course, instructors analyse course-objective attainment using examination results and other assessment evidence. Depending on the learning outcome, score-based or rubric-based methods are applied. Course-attainment data for selected core courses of both programs are documented in Appendix 22-3. Student evaluation of teaching is conducted every semester through the university information system. According to the SAR, the evaluation results are analysed systematically and, during the most recent three-year period, all evaluated courses achieved an excellent rating (Appendix 22-4).

Feedback and continuous improvement

According to the SAR, feedback for continuous improvement is collected from graduates, employers, industry representatives and professional accreditation activities. The information is used to review educational objectives, curriculum content and teaching arrangements. Graduate and employer surveys are used to assess whether the educational objectives remain aligned with societal and industry needs. (Appendix 22-5-01, 22-5-02).

The SAR further states that disciplinary-standard attainment is evaluated annually and reviewed comprehensively every two years. The evaluation combines course-attainment data with feedback from students, faculty members and homeroom teachers. Graduate feedback is used to identify areas for curriculum enhancement, including emerging technologies, engineering design, modern engineering tools, project management, communication skills and autonomous learning.

The School of Electrical and Information Engineering has conducted an internal quality evaluation using a SWOT analysis for both Programs to identify strategic measures for continuous improvement. The results of the SWOT analysis have been submitted to the expert panel.

Analysis and assessment of the expert panel

The experts confirm that both programs are operating a functioning quality assurance system that meets the core expectations of the ASIIN standards. The panel acknowledges that the management and faculty facilitate a quality culture which focuses on continuous improvement. Using SWOT analyses to develop strategic measures is an effective approach.

The experts have seen internal assurance operating across university, faculty, and departmental levels, including teaching assessments, classroom observations, peer reviews, and course inspections. Students complete mandatory semesterly online evaluations. External validation such as employer and alumni surveys enables data-driven curriculum adjustments. The faculty uses evaluation reports to refine teaching methods, and students note tangible course improvements from their feedback.

The experts note that the evaluation data presented in Table 5-2 of the SAR identifies comparatively lower levels of achievement for the EIE program in Standard 7, Environment and Sustainable Development (3.82), and Standard 11, Project Management (3.83). In addition, more than 70% of the surveyed graduates recommended strengthening these two areas. The submitted documentation, however, does not clearly indicate which specific curricular adjustments or other improvement measures have been implemented, or are planned, in response to these findings. To assess whether the identified weaknesses have been addressed and whether the measures taken have led to measurable improvement, the experts request the latest available evaluation data corresponding to Table 5-2 of the SAR, together with a brief description of the curricular or quality-improvement measures introduced for Standards 7 and 11 in the EIE program.

The experts reviewed samples of the student surveys and appreciate that the survey design allows students to provide both quantitative ratings and free-text comments and suggestions. During the on-site discussions, student representatives explained that the anonymous online course evaluations are completed after the final examinations. Students may enter individual comments, but they can only view their own submitted ratings and do not receive access to aggregated results or information on the overall findings.

The students further reported that instructors sometimes provide direct oral feedback on measures taken in response to student comments. However, this practice appears to depend on the individual instructor and is not embedded in a systematic or transparent feedback procedure. In particular, students are not routinely informed about the main survey results, the conclusions drawn from them, or the concrete curricular and teaching-related measures implemented as a consequence.

The experts therefore identify room for improvement in closing the feedback loop. They recommend that the university establish a transparent process for communicating aggregated evaluation results and resulting improvement measures to students. This would allow students to understand how their feedback is considered in the further development of teaching and the curriculum and would strengthen confidence in the effectiveness of the quality assurance system.

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

For both programs:

As the university did not address the recommendation to inform the students about the evaluation results in its statement, the experts maintain the requirement (see section F, A6).

For EIE program:

In response to the experts' request for the latest evaluation data presented in SAR Table 5-2 and a brief description of the quality improvement measures concerning Graduation Requirements 7 and 11, the university acknowledges that the EIE program currently shows deficiencies in adequately supporting these two graduation requirements. The university states that corresponding improvements will be implemented in future teaching activities. However, no concrete measures, implementation timeline, or updated evaluation data have been provided. The experts therefore formulate the recommendation (see section F, E11).

Generally, the experts assess the criterion as partially fulfilled.

C-10. Transparency and documentation [ASIIN 4]

Description of the current status:

Module Descriptions [ASIIN 4.1]

The module descriptions in Appendix 09 follow a common structure for both programs. They specify the course title, position in the curriculum, responsible instructor or unit, language of instruction, teaching format, contact and self-study hours, total workload, ECTS credits, prerequisites and intended learning outcomes. Course content is presented by topic or chapter, often with an allocation of teaching and self-study hours. The descriptions also include assessment methods and weightings, together with recommended textbooks and reference literature (Appendix 09-1-01; Appendix 09-1-02).

Program- and course-related information is accessible through the university's teaching-management systems, including the Academic Affairs Management Platform, the School and Academic Affairs Office websites, and the Smart Campus portal. These platforms provide access to the talent cultivation plans, curriculum structure, course schedules, examinations and grades.

Diploma and Diploma Supplement [ASIIN 4.2]

The SAR explains the procedures for graduation review and bachelor's degree conferral. Students who complete the curriculum within the prescribed study period, obtain the required compulsory and total credits, and satisfy the graduation requirements receive a graduation certificate (Appendix 02-8). Those who additionally meet the degree-awarding requirements, including a cumulative grade point average of at least 2.0, receive a bachelor's degree certificate (Appendix 02-4). Samples of both certificates are provided in Appendices 21-1-01 and 21-1-02.

Graduates also receive an academic transcript documenting their individual achievements, including course titles, categories, credits and grades. The transcript covers general education, mathematics and natural sciences, disciplinary and specialized courses, practical training and the graduation project. Samples for EEA and EIE are provided in Appendices 21-2-01 and 21-2-02. A sample of diploma supplement is provided in Appendix 21-4 and *Measures for the Administration of ASIIN Accredited Diploma Supplements* is provided in Appendix 21-3.

During the on-site visit, the program coordinators admitted that the diploma supplement is only issued on request of students. Besides the English version, the translation into other languages can also be provided on request. The experts reviewed the submitted sample.

Relevant Rules [ASIIN 4.3]

According to the SAR, students' rights and responsibilities are governed by binding university regulations. The Student Handbook covers areas such as student conduct, scholarships and awards, disciplinary procedures, examination rules, appeals, leave arrangements, accommodation and financial support (Appendix 01-1).

The regulatory framework in Appendix 02 addresses talent cultivation plans, degree conferral, academic status, teaching quality assurance, assessment, experimental teaching, innovation and entrepreneurship, staff responsibilities, equipment management and laboratory safety. Examination-specific provisions are contained in Appendix 17. These regulations are implemented by the Student Affairs Department, the Academic Affairs Office, and the relevant schools and departments. Students can access academic information and complete related administrative procedures through the Smart Campus and academic-management systems.

Analysis and assessment of the expert panel

Module descriptions

The expert panel acknowledges that both programs maintain formally structured and accessible module and course descriptions, consolidated into a unified handbook. Each module description provides key academic information, including the module title, semester placement, credit value, contact hours, learning outcomes, prerequisites, teaching and assessment methods, and workload distribution.

During the discussion, the experts asked the program coordinators to clarify how the course *High-Frequency Circuits* is defined within the EIE program. The coordinators explained that the program focuses primarily on electronic hardware and uses the term to refer mainly to components and circuits such as mixers, amplifiers and filters. Microwave-related content belongs to another bachelor program Communication Engineering.

The experts pointed out that, in the German academic context, *High-Frequency Engineering* is generally understood more broadly and commonly includes topics such as transmission lines, waveguides and antennas. The discussion therefore revealed a difference in disciplinary terminology and scope. To ensure transparency and international comparability, the experts consider it important that the module descriptions clearly specify the content covered under *high-frequency circuits and recommend renaming it as "Microwave Electronic Circuits"*. Additionally, the experts also noticed that the title *Fundamentals of College Computers* does not accurately reflect the course content. Therefore, it is recommended to rename the course to *Introduction to Computers*, which more appropriately describes its scope and learning content.

The experts further note that the module descriptions are available only on the dedicated ASIIN webpage. They therefore recommend publishing the current module descriptions on the university's official website and ensuring that they remain readily accessible to all relevant stakeholders, particularly domestic applicants and enrolled students.

Diploma and Diploma Supplement

The experts recognize the adoption of the *Measures for the Administration of ASIIN Accredited Diploma Supplements* as an important step towards formalizing the preparation and issuance of Diploma Supplements. The regulation defines responsibilities for the relevant university units and students and covers data collection, review, issuance, correction, reissuance, verification and archiving. It also states that the Diploma Supplement is issued free of charge together with the degree certificate and includes a unique serial number and an official seal.

The submitted template broadly follows the eight-section Diploma Supplement structure and includes information on the qualification holder, qualification, level, duration, qualification profile, access to further study, certification and the Chinese higher education system. However, it relates to Energy and Power Engineering rather than the EEA and EIE programs and still contains incomplete placeholders, including "XX compulsory modules," as well as the inappropriate reference to the German word "Abschlusszeugnis."

Section 4.3 lists general curriculum components but does not document the individual graduate's module results, credits, grades or graduation-project results. Sections 4.4 and 4.5 also state that the ECTS grading scheme is still being prepared and does not explain the calculation of the final grade or provide statistical grade-distribution data.

The experts consider therefore that the template does not yet fully meet ASIIN Criterion 4.2.

Relevant rules

The expert panel acknowledges that academic and regulatory information is available in Chinese during orientation session. Freshmen receive guidance on these regulations, and feedback from student representatives indicates that they can easily find relevant information via online platforms. The expert panel confirms that CCIT has established a comprehensive set of regulations, which are accessible to students and faculty through the university's online portal. The panel concludes that these regulations are clearly documented and effectively implemented.

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

The university states that the English-language Diploma Supplement template is currently under revision and has therefore not submitted an updated version. As the experts are unable to review the revised template and verify the corresponding changes, they maintain the requirement (see section F, A5).

Furthermore, the experts note that the updated module descriptions, curricula, and talent cultivation plans including the revised intended learning outcomes, have not yet been published on the university's official website (https://dxxy.ccit.edu.cn/). Therefore, the experts formulate a requirement to ensure that the latest versions of these documents are accessible to all relevant stakeholders (A1).

Additionally, the experts note that the English titles of the courses High-Frequency Electronic Circuits and Fundamentals of College Computers have not yet been revised in the

updated module descriptions. Therefore, the experts maintain the respective recommendation (see section F, E10).

Generally, the experts assess the criterion as partially fulfilled.

D. Additionally requested documents

Before preparing their final assessment, the panel asks 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:

- The official 2026 talent cultivation plans for both programs, if the learning outcomes have been changed, together with a summary of the changes. [ASIIN 1.1]
- The official 2026 curricula for both programs, if the curricula have been changed, together with a summary of the changes. [ASIIN 1.3]
- Updated module matrix reflecting the published 2026 curricula for both programs, where applicable, together with a summary of the changes. [ASIIN 1.3]
- Formal regulation and supporting documents governing the recognition of externally acquired qualifications and credits [ASIIN 1.4]
- Revised module descriptions for both programs to ensure the contact hours, self-study hours, total workload and ECTS credits are fully consistent. The corresponding changes in the curricula 2026 should be also reflected by the revision. [ASIIN 1.5, 4.1]
- Revised cohort statistics for both programs or an explanation of the differing figures with Appendix 10-4. [ASIIN 1.5]
- For EIE program: The latest version of evaluation data (SAR Table 5-2, p.65) to verify whether there is any improvement on Standards 7 and 11 for EIE, together with a brief description of the curricular or quality-improvement measures introduced for Standards 7 and 11 in the EIE program. [ASIIN 5]
- Revised template of Diploma Supplement [ASIIN 4.2]

The university has provided the following additional documents:

Appendix 1 Statement of the Talent Development Program (Revision of 2026) EEA and EIE
Appendix 2-01 Objectives & Learning Outcomes for EEA
Appendix 2-02 Objectives & Learning Outcomes for EIE
Appendix 3-01 Official Program Name for EEA
Appendix 3-02 Official Program Name for EIE
Appendix 4-01 Study Plan or Curricular Overview for EEA
Appendix 4-02 Study Plan or Curricular Overview for EIE
Appendix 5-01 Module Descriptions for EEA
Appendix 5-02 Module Descriptions for EIE
Appendix 6-01 Objective-Module Matrix of EEA
Appendix 6-02 Objective-Module Matrix of EIE

E. Comment of the Higher Education Institution (19.08.2026)

The following quotes the statement of the institution:

ASIIN Accreditation Committee:

Our university's two programs, Electrical (Power) Engineering and Its Automation and Electronic Information Engineering, underwent the ASIIN on-site evaluation in late June 2026. We have received the evaluation report issued by your Committee. The university attaches great importance to the report and organized the Office of Academic Affairs, the Teaching Quality Supervision and Assessment Center, the School of Electrical and Information Engineering, and the program directors to carefully review and discuss the contents of the report.

The university has reviewed the factual statements in the evaluation report item by item and confirms that the facts stated in the report are objective, accurate, and consistent with the actual situation of the programs. The university accepts the factual statements contained in the report. Our responses to the main comments are as follows.

I. General Comments

The evaluation expert panel conducted a comprehensive, objective, and thorough review of the two programs, Electrical (Power) Engineering and Its Automation and Electronic Information Engineering. The evaluation report not only affirms the achievements made in program development, but also accurately identifies existing problems and shortcomings, and puts forward targeted recommendations and improvement requirements. The university accepts the conclusions of the report and expresses sincere appreciation to the expert panel for its dedicated work and professional guidance.

The issues, requirements, and recommendations set out in the report are fully accepted by the university. We will take them as an important basis for the continuous improvement of the programs and for enhancing educational quality.

II. Supplementary Materials and Explanations

(I) [ASIIN 1.1] 2026 Talent Development Program

For the two programs, the 2026 Talent Development Program differs from the previous version in graduation requirements, total credits, ECTS credit conversion, curriculum structure, and support matrices. A summary of the revisions is provided in Appendix 1.

The documents related to the 2026 Talent Development Program are provided in:(Appendix 2-01; Appendix 2-02),(Appendix 3-01; Appendix 3-02),(Appendix 4-01; Appendix 4-02).

(II) [ASIIN 1.2] Name of the degree program

The university has adopted experts' suggestions and revised the name "Electrical Engineering and Automation" to "Electrical (Power) Engineering and Its Automation".

(III) [ASIIN 1.3] Teaching Syllabi

1.A summary of the revisions to the new teaching syllabi for the two programs is provided in Appendix 1. The complete collection of course syllabi for the 2026 version is provided in:(Appendix 5-01; Appendix 5-02).

2.A summary of the revisions to the course support matrices for the two programs, comparisons between the previous and revised versions of the course support matrices, are provided in Appendix 1. The updated Objective-Module Matrices for the 2026 version are provided in:(Appendix 6-01; Appendix 6-02).

(IV) [ASIIN 1.4] Admission Requirements

The formal regulations and supporting documents for the recognition of externally acquired qualifications and credits are currently under development.

(V) [ASIIN 1.5] Workload and Credits

1.The university is currently revising the ECTS credit conversion standards in order to unify the conversion criteria for all courses. Therefore, the ECTS credits in the 2026 version are currently calculated according to the original conversion standards.

2.In the two programs, two students voluntarily withdrew from the university for personal reasons and were therefore not included in the statistics of students expected to graduate.

(VI) [ASIIN 5] Quality Management: Quality Assurance and Development

The EIE program has deficiencies in supporting Graduation Requirements 7 and 11. Improvements will be implemented in future teaching activities.

(VII) [ASIIN 4.2] Publicity and Documentation

The university is currently revising the English-language Diploma Supplement template.

III. Improvement Assurance and Continuous Improvement Mechanism

To ensure the effective implementation of the improvement measures, the university will establish an ASIIN Accreditation Improvement Working Group led by the Vice President for

Academic Affairs. Members will include the heads of the Office of Academic Affairs, the Teaching Quality Supervision and Assessment Center, the School of Electrical and Information Engineering, and relevant administrative departments. The university will formulate an action plan specifying responsible units, responsible personnel, and completion deadlines, and will establish a clear follow-up and monitoring mechanism.

During the improvement period, the university will regularly review progress and submit improvement reports or progress updates to the Accreditation Committee as required. Guided by the principles of Outcome-Based Education (OBE), the programs will focus on continuous improvement in areas such as credit recognition and international comparability, verification of out-of-class student workload and improvement of the Diploma Supplement, student feedback on teaching, standardization of the official English names of the programs, and quality management of final-year projects. In addition, the university will continue to improve the talent development program, curriculum system, teaching implementation, assessment and evaluation methods, and quality assurance system, so as to continuously enhance educational quality.

Once again, we sincerely thank the ASIIN Accreditation Committee and the evaluation expert panel for their guidance and support for our programs in Electrical (Power) Engineering and Its Automation and Electronic Information Engineering. The university will conscientiously implement the improvement measures, continuously strengthen program development, and steadily enhance educational quality. Should further materials or clarifications be required, the university will actively cooperate.

Yours sincerely,

Changchun Institute of Technology

F. Summary: Expert recommendations (26.08.2026)

Taking into account the additional information and the statement given by Changchun Institute of Technology, the experts summarize their analysis and final assessment for the award of the seals as follows:

Degree Program	ASIIN Seal	Maximum duration of accreditation	Subject-specific label	Maximum duration of accreditation
Ba Electrical Engineering and Automation	With requirements for one year	30.09.2032	/	/
Ba Electronic Information Engineering	With requirements for one year	30.09.2032	/	/

Requirements

For all degree programs:

A1 [ASIIN 1.1,1.3,4.1] Ensure that the latest versions of the intended learning outcomes, curricula, and module descriptions are publicly accessible to all relevant stakeholders.

A2 [ASIIN 1.4] Define and implement adequate rules for the recognition of qualifications achieved externally.

A3 [ASIIN 1.5] Use a uniform conversion basis, with one ECTS credit corresponding to a fixed workload value in line with the European Credit Transfer and Accumulation System.

A4 [ASIIN 1.5] Establish and implement a transparent mechanism for systematically evaluating and verifying students' actual workload, as well as to involve students in the review and adjust credits where necessary.

A5 [ASIIN 4.2] Ensure that all graduates are provided a Diploma Supplement in English in line with the ASIIN criteria.

A6 [ASIIN 5] Ensure that students are informed about the evaluation results.

For Bachelor program EEA

A7 [ASIIN 1.2 EEA] Revise the official English program title to Electrical (Power) Engineering and Its Automation so that it more accurately reflects the academic focus and content of the program.

For Bachelor program EIE

A8 [ASIIN 2 EIE] Ensure that the thesis adheres to scientific and academic standards, including a clear problem statement, an appropriate methodology, a literature review, a justified solution-selection process, a discussion of the results, and an outlook. In addition, make sure that the practical work is carried out with sufficient scientific rigour and is supported by adequate theory and data.

Recommendations

For all degree programs:

E1 [ASIIN 1.1,1.3] It is recommended to maintain and update the English website beyond the ASIIN accreditation process.

E2 [ASIIN 1.3] It is recommended to encourage students to participate in international mobility opportunities.

E3 [ASIIN 1.3] It is recommended to further improve English proficiency of students by providing professional courses taught in English or bilingually.

E4 [ASIIN 1.3] It is recommended to extend the duration of internships to 3–4 months in order to provide students with more substantial practical experience.

E5 [ASIIN 2] It is recommended to enforce consistent adherence to recognized academic writing conventions, including proper citation, referencing, and the use of standardized formatting templates. Furthermore, it is recommended that the thesis evaluation should focus more on critical thinking and making independent scientific choices and decisions.

E6 [ASIIN 3.1] It is recommended to develop and implement a targeted recruitment plan for additional qualified academic staff to ensure sufficient teaching and supervision capacity.

For Bachelor program EIE

E7 [ASIIN 1.3 EIE] It is recommended to introduce an elective course on Chip Design, building on the existing PCB design and FPGA teaching, and to include the fundamentals of semiconductor technology into the teaching of Analog Electronic Technology to further strengthen the curriculum.

E8 [ASIIN 1.3 EIE] It is recommended to expand the course Analog Electronic Technology by including complementary MOS (CMOS) amplifier stages and fundamental CMOS analog building blocks, such as current mirrors, differential pairs, and active loads, alongside the existing BJT-based content.

E9 [ASIIN 2 EIE] It is recommended to reduce memory-based knowledge checks and include more calculation tasks and problem-oriented questions that assess students' integrated competencies.

E10 [ASIIN 4.1 EIE] It is recommended to revise the English titles of the courses "High Frequency Electronic Circuits" and "Fundamentals of College Computers" so that they more accurately reflect their scope and learning content.

E11 [ASIIN 5 EIE] It is recommended to develop and implement measures to strengthen the achievement of Graduation Requirements 7 and 11 and to evaluate the effectiveness of these measures through updated evaluation data.

G. Comment of the Technical Committee 02 – Electrical Engineering/Information Technology (04.09.2026)

Assessment and analysis for the award of the ASIIN seal:

The Technical Committee fully endorses the experts' assessment without any changes.

The Technical Committee recommends the award of the seals as follows:

Degree Program	ASIIN Seal	Maximum duration of accreditation	Subject-specific label	Maximum duration of accreditation
Ba Electrical Engineering and Automation	With requirements for one year	30.09.2032	/	/
Ba Electronic Information Engineering	With requirements for one year	30.09.2032	/	/

H. Decision of the Accreditation Commission (25.09.2026)

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

The Accreditation Commission discusses the procedure and follows the experts' and the TC's assessment with some amendments. The Commission makes a minor editorial amendment to Requirement A 5, inserting the word "with". Furthermore, the Commission rewords Requirement A 7 for the Bachelor's degree programme Electrical Engineering and Automation: instead of prescribing a specific English programme title ("Electrical (Power) Engineering and Its Automation"), the requirement now asks the university to ensure that the official English name of the degree programme accurately reflects its academic focus and content. With regard to the recommendations, the Commission amends Recommendation E 4 by removing the words "to 3–4 months", so that no specific internship duration is prescribed.

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
Ba Electrical Engineering and Automation	With requirements for one year	With requirements for one year	30.09.2032	–	/
Ba Electronic Information Engineering	With requirements for one year	With requirements for one year	30.09.2032	–	/

Requirements

For all degree programs:

A 1. [ASIIN 1.1, 1.3, 4.1] Ensure that the latest versions of the intended learning outcomes, curricula, and module descriptions are publicly accessible to all relevant stakeholders.

A 2. [ASIIN 1.4] Define and implement adequate rules for the recognition of qualifications achieved externally.

A 3. [ASIIN 1.5] Use a uniform conversion basis, with one ECTS credit corresponding to a fixed workload value in line with the European Credit Transfer and Accumulation System.

A 4. [ASIIN 1.5] Establish and implement a transparent mechanism for systematically evaluating and verifying students' actual workload, as well as to involve students in the review and adjust credits where necessary.

A 5. [ASIIN 4.2] Ensure that all graduates are provided with a Diploma Supplement in English in line with the ASIIN criteria.

A 6. [ASIIN 5] Ensure that students are informed about the evaluation results.

For Bachelor program EEA:

A 7. [ASIIN 1.2 EEA] Ensure that the official English name of the degree program accurately reflects its academic focus and content.

For Bachelor program EIE:

A 8. [ASIIN 2 EIE] Ensure that the thesis adheres to scientific and academic standards, including a clear problem statement, an appropriate methodology, a literature review, a justified solution-selection process, a discussion of the results, and an outlook. In addition, make sure that the practical work is carried out with sufficient scientific rigour and is supported by adequate theory and data.

Recommendations

For all degree programs:

E 1. [ASIIN 1.1, 1.3] It is recommended to maintain and update the English website beyond the ASIIN accreditation process.

E 2. [ASIIN 1.3] It is recommended to encourage students to participate in international mobility opportunities.

E 3. [ASIIN 1.3] It is recommended to further improve English proficiency of students by providing professional courses taught in English or bilingually.

E 4. [ASIIN 1.3] It is recommended to extend the duration of internships in order to provide students with more substantial practical experience.

E 5. [ASIIN 2] It is recommended to enforce consistent adherence to recognized academic writing conventions, including proper citation, referencing, and the use of standard-

ized formatting templates. Furthermore, it is recommended that the thesis evaluation should focus more on critical thinking and making independent scientific choices and decisions.

E 6. [ASIIN 3.1] It is recommended to develop and implement a targeted recruitment plan for additional qualified academic staff to ensure sufficient teaching and supervision capacity.

For Bachelor program EIE:

E 7. [ASIIN 1.3 EIE] It is recommended to introduce an elective course on Chip Design, building on the existing PCB design and FPGA teaching, and to include the fundamentals of semiconductor technology into the teaching of Analog Electronic Technology to further strengthen the curriculum.

E 8. [ASIIN 1.3 EIE] It is recommended to expand the course Analog Electronic Technology by including complementary MOS (CMOS) amplifier stages and fundamental CMOS analog building blocks, such as current mirrors, differential pairs, and active loads, alongside the existing BJT-based content.

E 9. [ASIIN 2 EIE] It is recommended to reduce memory-based knowledge checks and include more calculation tasks and problem-oriented questions that assess students' integrated competencies.

E 10. [ASIIN 4.1 EIE] It is recommended to revise the English titles of the courses "High Frequency Electronic Circuits" and "Fundamentals of College Computers" so that they more accurately reflect their scope and learning content.

E 11. [ASIIN 5 EIE] It is recommended to develop and implement measures to strengthen the achievement of Graduation Requirements 7 and 11 and to evaluate the effectiveness of these measures through updated evaluation data.

Appendix: Learning Outcomes and curricula

EEA - Electrical Engineering and Automation

Standard 1 (Engineering Knowledge): Be able to apply knowledge of mathematics, natural sciences, computing, engineering fundamentals and specialized electrical engineering knowledge to solve complex electrical engineering problems.

Standard 2 (Problem Analysis): Be able to apply fundamental principles of mathematics, natural sciences and engineering sciences to identify, judge and formulate complex electrical engineering problems. Through literature research and analysis, take sustainability requirements into comprehensive consideration to draw valid conclusions.

Standard 3 (Design/Development of Solutions): Be able to design solutions for complex electrical engineering problems taking social, health, safety, legal, cultural and environmental factors into account. Capable of designing electrical systems, units and devices for specific requirements, incorporating innovation in the design process. Furthermore, capable of evaluating feasibility from the perspectives of life-cycle cost, net-zero carbon requirements, legal compliance and engineering ethics.

Standard 4 (Research): Be able to investigate complex electrical engineering problems based on scientific principles and scientific methods by designing experiments, analysing and interpreting data, and synthesizing information, so as to reach reasonable and valid conclusions.

Standard 5 (Using modern tools): Be able to develop, select and apply appropriate technologies, resources, modern engineering tools and information-technology tools to test, analyse, calculate, predict and simulate complex electrical engineering problems, and understand their limitations.

Standard 6 (Engineering and Sustainability): Be able to reasonably analyse and properly evaluate the impacts of electrical-engineering-related professional practices and complex engineering problems on health, safety, environment, legislation, economy and social sustainable development, based on practical application scenarios and domain knowledge of electrical engineering projects, and understand the corresponding responsibilities to be assumed.

Standard 7 (Engineering Ethics and Professional Codes): Be imbued with the awareness of serving the country through engineering and benefiting the people, and possess humanistic and social-science literacy. Able to understand the social responsibilities of electrical engineers concerning public safety, health, well- being and environmental protection; able to

understand and practice engineering ethics, consciously abide by professional engineering ethics, codes and relevant laws in engineering practice, and fulfil social responsibilities.

Standard 8 (Individual and Team): Be equipped with strong team awareness and collaborative spirit. Capable of acting as an individual contributor, team member and team leader within diverse multidisciplinary teams, and competent in responding to unexpected emergencies.

Standard 9 (Communication): Be able to communicate effectively with industry peers and the general public on complex electrical engineering problems. Be capable of making presentations, articulating ideas clearly and responding to questions. Be competent in drafting official documents, engineering reports and design documents. Possess an international view in electrical engineering, be able to communicate in cross- cultural contexts, and understand and respect linguistic and cultural differences.

Standard 10 (Project Management): Understand and master management principles and economic-decision-making methods involved in electrical engineering projects, and be capable of applying them in multidisciplinary environments.

Standard 11 (Lifelong Learning): Possess the awareness and competence for autonomous learning, lifelong learning and critical thinking. Understand the impacts of broad-ranging technological changes on engineering and society, adapt to new technological transformations, and keep abreast of the latest theories, technologies and international cutting-edge developments in electrical engineering.

EIE- Electronic Information Engineering

(1) Application of engineering knowledge: Apply the knowledge of mathematics, natural sciences, computing and engineering fundamentals, as well as the core professional knowledge of electronic information engineering (such as circuits, signals and systems, microelectronics, communications, etc.), to solve complex engineering problems in the field of electronic information.

(2) Analysis of complex problems: Use the basic principles of mathematics, natural sciences and engineering science to identify, formulate, research and analyze complex engineering problems in the field of electronic information; sort out the problem background through literature research, and clarify the problem boundaries and key influencing factors.

(3) Design and development of solutions: Design creative solutions for complex electronic information engineering problems; design electronic information systems, components or processes that meet specific requirements of function, performance, reliability, cost, etc., and take relevant standards and constraints into consideration during the design process.

(4) Scientific research and practice: Use scientific research methods to study complex electronic information engineering problems and systems, including designing experimental schemes based on professional knowledge, collecting and analyzing experimental data, interpreting experimental results, and verifying the feasibility of solutions through research.

(5) Application of professional tools: Create, select and apply appropriate technologies, resources and modern electronic information engineering tools (such as EDA software, simulation tools, test instruments, etc.), including predicting and modeling the performance of electronic information systems, understanding the limitations of these tools and using them appropriately.

(6) Holistic view of engineering practice: Analyze and evaluate the outcomes of electronic information engineering practice in terms of sustainable development, social impact, economic cost, health and safety, laws and regulations, and environmental responsibility, and incorporate holistic considerations into problem definition and solution design.

(7) Professional ethics and morals: Apply ethical principles, commit to the practice and norms of professional ethics in the field of electronic information engineering, and comply with relevant national and international laws and regulations; demonstrate an understanding of and a correct attitude toward professional responsibility, and embody social responsibility in professional practice.

(8) Teamwork and communication: Collaborate effectively as a member or leader in diversified and inclusive teams, as well as in multidisciplinary, remote and distributed environments, to jointly complete electronic information engineering projects and achieve project goals through team synergy.

(9) Professional communication and expression: Communicate effectively and inclusively with industry peers and the public in complex electronic information engineering activities, including writing standardized technical reports and design documents, producing professional presentations, and clearly expressing technical viewpoints and project results.

(10) Project management and decision-making: Apply the knowledge and understanding of electronic information engineering management principles and economic decision-making methods in project planning, resource allocation, schedule control and cost accounting, so as to improve project implementation efficiency and economic benefits.

(11) Lifelong learning and adaptability: Recognize the necessity of continuous learning, possess the ability for independent and lifelong learning, be able to adapt to the development and changes of new technologies and methods in the field of electronic information, and maintain professional competitiveness through critical thinking and systematic learning.

08 Study Plan or Curricular Overview for Electrical (Power) Engineering and Its Automation

This part presents the eight-semester curriculum arrangement for the major of Electrical (Power) Engineering and Its Automation at Changchun Institute of Technology. According to the curriculum system and requirements, it details the course name, nature, contact credits, class hours, ECTS credits, self-study hours and total hours for each semester.

Order Number	Curriculum System	Course Category	Course Code	Course Title	Type	Contact Credit	Total Hours	Teach Class	Practice	ECTS Credit	Self Study Hour	Total class hours	School Begins
1	obligatory	liberal education	my02051010	Conspectus of Chinese Modern History	Lecture	3,0	48	40	8	3,0	42	90	I
2	obligatory	liberal education	my05011011	Current Situation and Policies	Lecture	0,20	8	7	1	0,20	0	8	I
3	obligatory	liberal education	wy01101011	College English 1	Lecture	3,0	48	48		3,0	42	90	I
4	obligatory	liberal education	ty01012011	College Physical Education and Health 1	Lecture	0,3	26	26		0,6	0	26	I
5	obligatory	liberal education	ty04012010	Military Theory	Lecture	2,0	36	36		2,0	0	36	I
6	obligatory	liberal education	xl01021010	Mental Health Education For College Students	Lecture	2,0	36	24	12	2,0	24	60	I
7	obligatory	liberal education	my04031020	Learning to Build Dreams Elective Course	Lecture	1,0	16	16		1,0	14	30	I
8	obligatory	natural science courses	lx01013011	Advanced Mathematics I-3	Lecture	4,5	72	72		4,5	63	135	I
9	obligatory	natural science courses	sz03501010	Introduction to Environmental Science	Lecture	1,0	16	16		1,0	14	30	I
10	obligatory	concentrated practice	wz01601010	Military skills	Practice	2,0	120		120	4,0	0	120	I
Total						19,00	426	285	141	21,30	199	625	
11	obligatory	liberal education	my05011012	Current Situation and Policies	Lecture	0,30	8	7	1	0,30	0	8	II
12	obligatory	liberal education	my01031010	Ideology Moral Cultivation and Legal Basis	Lecture	3,0	48	40	8	3,0	42	90	II
13	obligatory	liberal education	wy01101012	College English 2	Lecture	3,0	48	48		3,0	42	90	II
14	obligatory	liberal education	ty01012012	College Physical Education and Health 2	Lecture	0,5	34	34		1,0	0	34	II
15	obligatory	liberal education	jg05581010	General Literacy and Practice of Artificial Intelligence	Lecture	1,0	16	10	6	1,0	14	30	II
16	elective	liberal education	my02031020	History of the Communist Party of China	Lecture	1,0	16	16		1,0	14	30	II
17	elective	liberal education	my02041020	History of New China									
18	elective	liberal education	my04051020	History of Reform and Opening-up									
19	elective	liberal education	my03031020	History of Socialist Development									
20	obligatory	liberal education	dq02281011	Career Guidance and Career Planning for College Students I	Lecture	0,5	18	18		1,0	12	30	II
21	obligatory	natural science courses	lx01013012	Advanced Mathematics I-3	Lecture	5,0	80	80		5,0	70	150	II
22	obligatory	natural science courses	lx02022010	Linear Algebra II	Lecture	2,5	40	40		2,5	35	75	II
23	obligatory	natural science courses	lx03015011	College Physics I	Lecture	3,0	48	48		3,0	42	90	II
24	obligatory	engineering foundation	jg05122010	Fundamentals of Computer Programming (C)	Lecture	2,5	40	20	20	3,5	65	105	II

25	obligatory	engineering foundation	jd01204010	Engineering Drawing	Lecture	2,0	32	32		3,0	58	90	II
26	obligatory	concentrated practice	jg04601010	The practice of University Computer Foundation	Practice	1,0	20		20	1,5	25	45	II
Total						25,30	448	393	55	28,80	419	867	
27	obligatory	liberal education	my03041010	Fundamentals of Marxism	Lecture	3,0	48	40	8	3,0	42	90	III
28	obligatory	liberal education	my05011013	Current Situation and Policies	Lecture	0,20	8	7	1	0,20	0	8	III
29	obligatory	liberal education	ty01012013	College Physical Education and Health 3	Lecture	0,5	34	34		1,0	0	34	III
30	obligatory	liberal education	sc01022020	Innovative Methods and Practices	Lecture	1,0	16	16		1,0	14	30	III
31	obligatory	natural science courses	lx02032010	Probability theory and mathematical statistics Ⅰ	Lecture	3,0	48	48		3,0	42	90	III
32	obligatory	liberal education	wy01101013	College English 3	Lecture	2,0	32	32		2,0	28	60	III
33	obligatory	natural science courses	lx03015012	College Physics Ⅰ	Lecture	2,5	40	40		2,5	35	75	III
34	obligatory	natural science courses	lx02041010	Complex function	Lecture	2,0	32	32		2,0	28	60	III
35	obligatory	engineering foundation	dq01022010	Electric Circuit Theory	Lecture	4,5	72	58	14	7,0	138	210	III
36	obligatory	liberal education	dq02911010	Engineering Ethics	Lecture	1,0	16	16		1,0	14	30	III
37	obligatory	professional foundation	dq02102020	Introduction To Electrical Engineering	Lecture	1,5	24	25		2,0	36	60	III
38	obligatory	liberal education	ml01021010	Artistic Experience and Expression	Lecture	1,0	16,0	16,0		1,0	14,0	30,0	III
39	obligatory	liberal education	ml01011010	Aesthetic Education in Universities	Lecture	1,0	16,0	16,0		1,0	14,0	30,0	III
40	obligatory	concentrated practice	dq02601010	Professional Cognition Practice	Practice	1,0	20		20	1,5	25	45	III
41	obligatory	concentrated practice	dq01621010	Circuit Training	Practice	1,0	20		20	1,5	25	45	III
Total						25,20	442	380	63	29,70	455	897	
42	obligatory	liberal education	my04212010	Introduction to Mao Zedong Thought and the Theoretical System of Socialism with Chinese Characteristics	Lecture	3,0	48	40	8	3,0	42	90	IV
43	obligatory	liberal education	my05011014	Current Situation and Policies	Lecture	0,30	8	7	1	0,30	0	8	IV
44	obligatory	liberal education	ty01012014	College Physical Education and Health 4	Lecture	0,5	34	34		1,0	0	34	IV
45	obligatory	natural science courses	lx03023010	College Physics Experiment III	Lecture	1,5	24	24	0	1,5	21	45	IV
46	obligatory	liberal education	sc01012020	Entrepreneurship foundation	Lecture	1,0	16	16		1,0	14	30	IV
47	obligatory	engineering foundation	dq01032010	Analog Electronic Technology	Lecture	3,0	48	42	6	4,5	87	135	IV
48	obligatory	engineering foundation	dq04013010	Signals and Systems	Lecture	1,5	24	24	0	1,5	21	45	IV
49	obligatory	professional foundation	dq03012010	Principles of Automatic ControL	Lecture	2,0	32	32	0	3,0	58	90	IV
50	obligatory	engineering foundation	lx03032010	Electromagnetic Field	Lecture	2,0	32	32		3,0	58	90	IV

51	obligatory	professional foundation	dq02017010	Theory of Electrical Machine	Lecture	3,5	56	56	0	5,5	109	165	Ⅳ
52	obligatory	liberal education	gj01021010	Writing and Communication	Lecture	1,0	16	16		1,0	14	30	Ⅳ
53	obligatory	concentrated practice	dq01611010	Electronics Technology Practical Training	Practice	2,0	40		40	3,0	50	90	Ⅳ
54	obligatory	liberal education	my03061010	National Security Education	Lecture	1,0	16	16		1,0	0	16	Ⅳ
Total						22,3	394	339	55	29,3	474	868	
55	obligatory	liberal education	my04011010	Introduction to Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era	Lecture	3,0	48	32	16	3,0	42	90	Ⅴ
56	obligatory	liberal education	ty01012015	College Physical Education and Health 5	Lecture	0,2	16	16		0,4	0	16	Ⅴ
57	obligatory	liberal education	my05011015	Current Situation and Policies	Lecture	0,20	8	7	1	0,20	0	8	Ⅴ
58	obligatory	engineering foundation	dq01042010	Digital Electronic Technology	Lecture	2,5	40	32	8	3,5	65	105	Ⅴ
59	obligatory	specialized course	dq03074020	PLC Principle and Application	Lecture	2,0	32	26	6	3,0	58	90	Ⅴ
60	obligatory	professional foundation	dq03054020	Foundation and Application of Microcontroller	Lecture	2,0	32	26	6	2,0	28	60	Ⅴ
61	obligatory	professional foundation	dq02021010	Power System Analysis	Lecture	4,0	64	64		6,0	116	180	Ⅴ
62	obligatory	professional foundation	dq03033010	Power Electronics Technology	Lecture	2,5	40	34	6	4,0	80	120	Ⅴ
63	obligatory	liberal education	dq02281012	Career Guidance and Career Planning for College Students Ⅱ	Lecture	0,5	20	20		1,0	10	30	Ⅴ
64	obligatory	concentrated practice	dq02621010	Design of Power System Analysis	Practice	2,0	32		32	3,0	58	90	Ⅴ
65	obligatory	concentrated practice	dq03913010	Course Design of Power Electronics	Practice	1,0	16		16	1,5	29	45	Ⅴ
66	obligatory	concentrated practice	gx00611010	Engineering training	Practice	1,0	20		20	1,5	25	45	Ⅴ
67	obligatory	concentrated practice	dq03604010	Practice of Single Chip Microcomputer Application Technology	Practice	1,0	20		20	1,5	25	45	Ⅴ
Total						21,9	388	257	131	30,6	536	924	
68	obligatory	liberal education	my05011016	Current Situation and Policies	Lecture	0,30	8	7	1	0,30	0	8	Ⅵ
69	obligatory	specialized course	dq02031010	Power System Protective Relaying	Lecture	3,0	48	48		5,0	102	150	Ⅵ
70	obligatory	specialized course	dq02061010	Power Plant Electrical Engineering	Lecture	2,5	40	40		4,0	80	120	Ⅵ
71	obligatory	specialized course	dq02046010	High Voltage Technique	Lecture	2,5	40	40		4,0	80	120	Ⅵ
72	elective	Specialised Courses	dq02332020	Special Topic on New Technologies in Electrical Engineering	Lecture	1,5	24	24		2,0	36	60	Ⅵ
73	elective	specialized course	dq02291020	Electricity Market	Lecture								
74	elective	Specialised Courses	dq02342020	New Energy Generation and Comprehensive Utilization of Energy	Lecture								
75	obligatory	Specialised Courses	dq02901010	Power Technology Economics and Management	Lecture	1,5	24	24		2,0	36	60	Ⅵ

76	obligatory	concentrated practice	ts02601010	Labor Education and Practice	Practice	1,0	32		32	1,0	0	32	VI
77	obligatory	concentrated practice	dq02611010	Design of Electrical Engineering Course for Power Plant	Practice	2,0	32		32	3,0	58	90	VI
Total						14,3	248	183	65	21,3	392	640	
78	obligatory	liberal education	my05011017	Current Situation and Policies	Lecture	0,20	8	7	1	0,20	0	8	VII
79	elective	Specialised Courses	dq02051020	Automation of Electric Power Systems	Lecture	1,5	24	24		2,0	36	60	VII
80	elective	Specialised Courses	dq02841020	Fault Diagnosis and Condition Monitoring of Electrical Equipment	Lecture								
81	elective	Specialised Courses	dq02352020	Applications of Artificial Intelligence in Electrical Engineering	Lecture								
82	obligatory	concentrated practice	dq03624010	Practice of PLC Control System	Practice	2,0	40		40	3,0	50	90	VII
83	obligatory	concentrated practice	dq02651010	Power System Simulation Practice	Practice	2,0	40		40	3,0	50	90	VII
84	obligatory	concentrated practice	dq02761010	Training for Specialized English	Practice	1,0	20		20	1,5	25	45	VII
85	obligatory	concentrated practice	dq02461010	Comprehensive Practice of Electrical Engineering	Practice	5,0	100		100	7,5	125	225	VII
86	obligatory	concentrated practice	dq02501010	Comprehensive Practice in Electrical Safety and Emergency Rescue	Practice	1,0	20		20	1,5	25	45	VII
87	obligatory	concentrated practice	dq02681010	Electrical Production Practice	Practice	3,0	60		60	4,5	75	135	VII
88	obligatory	concentrated practice	jd01841010	Electrical CAD Application Training	Practice	1,0	20		20	1,5	25	45	VII
Total						16,7	332	31	301	24,70	411	743	
89	obligatory	graduation thesis/design	dq02692010	Graduation Project	Graduation Project	15,0	240	240		23,0	450	690	VIII
90	obligatory	liberal education	my05011018	Current Situation and Policies	Lecture	0,30	8	7	1	0,30	0	8	VIII
91	obligatory	liberal education		General Education Elective Courses	Lecture	2,0	32	0		2,0	60	60	I-VIII
92	obligatory	liberal education	tw01601010	Social Practice	Practice	1,0	16		16	1,0	14	30	I-VIII
93	obligatory	liberal education	sc01601010	Innovation and Entrepreneurship Practice	Practice	2,0	32		32	2,0	28	60	I-VIII
94	obligatory	liberal education	tw01611010	Club activities	Practice	1,0	16		16	1,0	14	30	I-VIII
Total						21,3	344	247	65	29,3	566	878	
Amount to						166,0	3022	2115	876	215,0	3452	6442	

Internship: 20 class hours per week.Curriculum Design: 16 class hours per week.Graduation Design: 16 class hours per week.

ECTS credits = Contact credits × 1.5.ECTS credits for compulsory engineering fundamental courses, professional fundamental courses and specialized courses are adjusted according to the courses.For physical education courses and Situation and Policy, only contact hours, contact credits and ECTS credits are counted, with 0 self-study hours.

Military Skills: contact credit is 1, ECTS credit is 4, with 0 self-study hours.For general education courses in humanities and social sciences, mathematics and natural science courses, and the second-class courses, contact credits are equal to

08 Study Plan or Curricular Overview for Electronic Information Engineering (2026)

This part presents the eight-semester curriculum arrangement for the major of Electronic Information Engineering at Changchun Institute of Technology. In accordance with the curriculum system and requirements, it details the course name, nature, contact credits, class hours, ECTS credits, self-study hours and total hours for each semester.Over a four-year period, students must complete at least 6,352 credit hours of study workload, which includes both contact hours and self-study hours, amounting to a total of 212 ECTS credits; among these, the self-study workload must constitute at least 3,362 credit hours.

Order Number	Curriculum System	Course Category	Course Code	Course Title	Type	Contact Credit	Contact hours	Teach Class	Practice	ECTS Credit	Self Study Hours	Total workload	School Begins
1	obligatory	liberal education	my01031010	Ideology Moral Cultivation and Law Basis	Lecture	3,0	48	40	8	3,0	42	90	I
2	obligatory	liberal education	my02051010	Conspectus of Chinese Modern History	Lecture	3,0	48	40	8	3,0	42	90	I
3	obligatory	liberal education	my05011011	Current Situation and Policies	Lecture	0,25	8	7	1	0,25	0	8	I
4	obligatory	liberal education	wy01101011	College English	Lecture	3,0	48	48		3,0	42	90	I
5	obligatory	liberal education	ty01012011	College Physical Education and Health	Lecture	0,3	26	26		0,6	0	26	I
6	obligatory	liberal education	ty04012010	Military Theory	Lecture	2,0	36	36		2,0	0	36	I
7	obligatory	liberal education	xl01021010	Mental Health Education For College Students	Lecture	2,0	36	24	12	2,0	24	60	I
8	obligatory	liberal education	my04031020	Learning to Build Dreams Elective Course	Lecture	1,0	16	16		1,0	14	30	I
9	obligatory	natural science courses	lx01013011	Advanced Mathematics	Lecture	4,5	72	72		4,5	63	135	I
10	obligatory	natural science courses	sz03501010	Introduction to Environmental Science	Lecture	1,0	16	16		1,0	14	30	I
11	obligatory	concentrated practice	wz01601010	Military skills	Practice	2,0	120		120	4,0	0	120	I
Total						22,05	474	325	149	24,35	241	715	
12	obligatory	liberal education	my05011012	Current Situation and Policies	Lecture	0,25	8	7	1	0,25	0	8	II
13	obligatory	liberal education	wy01101012	College English	Lecture	3,0	48	48		3,0	42	90	II
14	obligatory	liberal education	ty01012012	College Physical Education and Health	Lecture	0,5	34	34		1,0	0	34	II
15	obligatory	liberal education	jg05581010	General Literacy and Practice of Artificial Intelligence	Lecture	1,0	16	10	6	1,0	14	30	II
16	obligatory	liberal education	my02031020	History of the Communist Party of China	Lecture	1,0	16	16		1,0	14	30	II
17	obligatory	liberal education	my02041020	History of New China									
18	obligatory	liberal education	my04051020	History of Reform and Opening-up									
19	obligatory	liberal education	my03031020	History of Socialist Development									
20	obligatory	liberal education	dq04281011	Career Guidance and Career Planning for College Students	Lecture	0,5	18	18		1,0	12	30	II

21	obligatory	natural science courses	lx01013012	Advanced Mathematics	Lecture	5,0	80	80		5,0	70	150	II
22	obligatory	natural science courses	lx02022010	Linear Algebra II	Lecture	2,5	40	40		2,5	35	75	II
23	obligatory	natural science courses	lx03015011	College Physics I	Lecture	3,0	48	48		3,0	42	90	II
24	obligatory	engineering foundation	jg05122010	Fundamentals of Computer Programming (C)	Lecture	2,5	40	20	20	3,5	65	105	II
25	obligatory	engineering foundation	jd01204010	Engineering Drawing	Lecture	2,0	32	32		3,0	58	90	II
26	obligatory	concentrated practice	gx00611010	Engineering Training	Practice	1,0	20		20	1,5	25	45	II
27	obligatory	liberal education	gj01021010	Writing and Communication	Lecture	1,0	16	16		1,0	14	30	II
Total						23,25	416	369	47	26,75	391	807	
28	obligatory	liberal education	my03041010	Fundamentals of Marxism	Lecture	3,0	48	48		3,0	42	90	III
29	obligatory	liberal education	my05011013	Current Situation and Policies	Lecture	0,25	8	7	1	0,25	0	8	III
30	obligatory	liberal education	ty01012013	College Physical Education and Health	Lecture	0,5	34	34		1,0	0	34	III
31	obligatory	liberal education	wy01101013	College English	Lecture	2,0	32	32		2,0	28	60	III
32	obligatory	liberal education	sc01022020	Innovative Methods and Practices	Lecture	1,0	16	16		1,0	14	30	III
33	obligatory	natural science courses	lx02032010	Probability theory and mathematical statistics I	Lecture	3,0	48	48		3,0	42	90	III
34	obligatory	natural science courses	lx03015012	College Physics	Lecture	2,5	40	40		2,5	35	75	III
35	obligatory	natural science courses	lx02041010	Complex Function	Lecture	2,0	32	32		2,0	28	60	III
36	obligatory	engineering foundation	dq01024010	Circuit Theory	Lecture	4,0	64	54	10	5,5	101	165	III
37	elective	professional foundation	jg25011020	Data Structures	Lecture	2,0	32	16	16	3,0	58	90	III
38	obligatory	concentrated practice	dq04601010	Professional Cognition Practice	Practice	1,0	20		20	1,5	25	45	III
39	obligatory	concentrated practice	dq04632010	Course Design for Application of Microcontroller System	Practice	2,0	32		32	3,0	58	90	III
40	obligatory	concentrated practice	dq04701010	Training of MATLAB Base and Application	Practice	1,0	20		20	1,5	25	45	III
41	obligatory	art courses	ml01021010	Artistic Experience and Expression	Lecture	1,0	16	16		1,0	14	30	III
42	obligatory	art courses	ml01011010	Aesthetic Education in Universities	Lecture	1,0	16	16		1,0	14	30	III
Total						26,25	458	359	99	31,25	484	942	

43	obligatory	liberal education	my04212010	Introduction to Mao Zedong Thought and the Theoretical System of Socialism with Chinese Characteristics	Lecture	3,0	48	40	8	3,0	42	90	IV
44	obligatory	liberal education	my05011014	Current Situation and Policies	Lecture	0,25	8	7	1	0,25	0	8	IV
45	obligatory	liberal education	my03061010	National Security Education	Lecture	1,0	16	16		1,0	0	16	IV
46	obligatory	liberal education	lx03023010	College Physics Experiment	Lecture	1,5	24		24	1,5	21	45	IV
47	obligatory	liberal education	ty01012014	College Physical Education and Health	Lecture	0,5	34	34		1,0	0	34	IV
48	obligatory	liberal education	sc01011020	Entrepreneurship foundation	Lecture	1,0	16	16		1,0	14	30	IV
49	obligatory	engineering foundation	dq01032010	Analog Electronic Technology	Lecture	3,0	48	42	6	4,0	72	120	IV
50	obligatory	engineering foundation	dq04011010	Signals and Systems	Lecture	3,0	48	42	6	4,0	72	120	IV
51	obligatory	engineering foundation	lx03031010	Electromagnetic Fields and Electromagnetic Waves	Lecture	2,0	32	32		3,0	58	90	IV
52	obligatory	professional foundation	dq04021010	Information Theory&Coding	Lecture	2,0	32	32		3,0	58	90	IV
53	elective	professional foundation	dq04102020	Machine Learning in Action Based on Python	Lecture	1,5	24	16	8	2,5	51	75	IV
54	obligatory	concentrated practice	dq01611010	Electronic Technology Practice	Practice	2,0	40		40	3,0	50	90	IV
Total						20,75	370	277	93	27,25	438	808	
55	obligatory	liberal education	my04011010	Introduction to Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era	Lecture	3,0	48	32	16	3,0	42	90	V
56	obligatory	liberal education	my05011015	Current Situation and Policies	Lecture	0,25	8	7	1	0,25	0	8	V
57	obligatory	engineering foundation	dq01042010	Digital Electronic Technology	Lecture	2,5	40	32	8	3,5	65	105	V
58	obligatory	professional foundation	dq04031010	Digital Signal Processing	Lecture	2,5	40	34	6	3,5	65	105	V
59	obligatory	professional foundation	dq04042010	High-Frequency Electronic Circuits	Lecture	2,5	40	32	8	3,5	65	105	V
60	obligatory	professional foundation	dq04231010	Cortex-M3 Development and Practice	Lecture	2,5	40	28	12	3,5	65	105	V
61	obligatory	liberal education	ty01012015	College Physical Education and Health	Lecture	0,2	16	16		0,4	0	16	V
62	obligatory	concentrated practice	dq04611010	Training of Electronic Circuit PCB Design	Practice	2,0	40		40	3,0	50	90	V
63	obligatory	concentrated practice	ts02601010	Labor Education and Practice	Practice	1,0	32		32	1,0	0	32	V
Total						16,45	304	181	123	21,65	352	656	
64	obligatory	liberal education	my05011016	Current Situation and Policies	Lecture	0,25	8	7	1	0,25	0	8	VI

65	obligatory	liberal education	dq04281022	Career Guidance and Career Planning for College Students	Lecture	0,5	20	20		1,0	10	30	VI
66	obligatory	professional foundation	dq04061010	Communication Principle	Lecture	3,0	48	36	12	4,0	72	120	VI
67	obligatory	specialized course	dq04072010	EDA Technology and Application	Lecture	2,5	40	28	12	3,5	65	105	VI
68	obligatory	specialized course	dq04091010	Digital Image Processing	Lecture	2,0	32	20	12	3,0	58	90	VI
69	elective	specialized course	dq04341020	Intelligent Sensing Technology and Applications	Lecture	1,5	24	12	12	2,5	51	75	VI
70	elective	specialized course	dq04251010	RFID Development Technology and Practice	Lecture	2,0	32	20	12	3,0	58	90	VI
71	obligatory	concentrated practice	dq04761010	Course Design for EDA Technology and Application	Practice	2,0	32		32	3,0	58	90	VI
72	obligatory	concentrated practice	dq04771010	Course Design for Application of Embedded System	Practice	2,0	32		32	3,0	58	90	VI
73	obligatory	liberal education	sc01601010	Innovation and Entrepreneurship Training	Practice	2,0	32		32	2,0	28	60	I–VIII
Total						17,8	300	143	157	25,25	458	758	
74	obligatory	concentrated practice	dq04711010	Training for Specialized English	Practice	1,0	20	20		1,5	25	45	VII
75	obligatory	concentrated practice	dq04781010	Comprehensive Practice of Intelligent Hardware	Practice	6,0	120		120	9,0	150	270	VII
76	obligatory	concentrated practice	dq04792010	Practice Training of Signal and Image Processing	Practice	6,0	120		120	9,0	150	270	VII
77	obligatory	concentrated practice	dq04752010	Production Practice	Practice	6,0	120		120	9,0	150	270	VII
78	obligatory	liberal education	my05011017	Current Situation and Policies	Lecture	0,25	8	7	1	0,25	0	8	VII
Total						19,25	388	27	361	28,75	475	863	
79	obligatory	graduation thesis/design	dq04691010	Graduation Project	Graduation Project	15,0	240		240	22,5	435	675	VIII
80	obligatory	liberal education	my05011018	Current Situation and Policies	Lecture	0,25	8	7	1	0,25	0	8	VIII
81	obligatory	liberal education		General Education Elective Courses	Lecture	2,0	0			2,0	60	60	I–VIII
82	obligatory	liberal education	tw01601010	Social Practice	Practice	1,0	16		16	1,0	14	30	I–VIII
83	obligatory	liberal education	tw01611010	Club Activities	Practice	1,0	16		16	1,0	14	30	I–VIII
Total						19,25	280	7	273	26,75	523	803	
Amount to						165,0	2990	1688	1302	212,0	3362	6352	