Faculty Development Plan

College of Mechanical and Electrical Engineering, Kunming University

(2026–2030)

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I. Planning Background

The faculty team is the primary resource for college development and the fundamental guarantee for improving talent cultivation quality, enhancing discipline construction, and strengthening social service capabilities. Currently, the college is in a critical period of advancing ASIIN international accreditation for the Electrical Engineering and Automation programme, deepening New Engineering construction, and implementing applied talent cultivation model reform. There is an urgent need to build a high-quality faculty team to support the high-quality development of the college and the professional accreditation work.

To thoroughly implement the spirit of documents such as the "Opinions on Comprehensively Deepening the Reform of Teacher Team Construction in the New Era" and the "Overall Plan for Deepening Education Evaluation Reform in the New Era", proactively adapt to the connotative development of higher education and the needs of engineering education professional accreditation, comprehensively improve the level of faculty team construction in the college, and in combination with the actual situation of the college, this plan is formulated.

II. Current Situation Analysis of the Faculty Team

(I) Basic Situation

As of August 2026, the Electrical Engineering and Automation programme of the College of Mechanical and Electrical Engineering has 15 full-time faculty members and employs 10 enterprise employees as part-time instructors. In terms of professional title structure: 4 professors (26.7%), 5 associate professors (33.3%), and 6 lecturers and below (40.0%), forming a relatively reasonable echelon structure. In terms of educational background: 5 teachers hold doctoral degrees (33.3%), and 10 teachers hold master's degrees (66.7%). In terms of age structure: teachers under 35 years old account for 40%, 36-45 years old account for 33.3%, and over 45 years old account for 26.7%, showing a trend of youthfulness.

Among the faculty team, there is 1 vice dean, 1 programme director, and several course directors, forming a relatively complete teaching management echelon. Some teachers have enterprise work experience or engineering practice backgrounds, and the "dual-qualified" teacher team is beginning to take shape. In the past five years, teachers have undertaken multiple provincial and ministerial-level scientific research projects, published numerous SCI/EI indexed papers, and obtained multiple invention patents, laying a good foundation for professional construction and talent cultivation.

(II) Existing Problems

1. Relatively insufficient faculty quantity. With the expansion of student enrollment and the optimization of the curriculum system, the student-faculty ratio is relatively high, and some core course teachers bear heavy teaching loads, making it difficult to meet the needs of refined teaching and personalized guidance.

2. Shortage of high-level talents. There are insufficient discipline leading talents and academic leaders, and there are shortcomings in national-level talent projects and high-level scientific

research team construction, lacking experts and scholars with important influence at home and abroad.

3. The proportion of "dual-qualified" teachers needs to be improved. Some teachers lack engineering practice experience, the mechanisms for enterprise temporary training and engineering capability improvement are not sufficiently complete, and in-depth cooperation with industry enterprises needs to be strengthened.

4. The young teacher cultivation system needs further improvement. Newly recruited doctoral teachers have insufficient teaching experience, and teaching capability improvement and career development planning require systematic support. The mentor system and the mechanism of passing on experience need further implementation.

5. The teacher evaluation and incentive mechanism needs to be optimized. The tendency of emphasizing scientific research over teaching still exists. The weight of teaching quality, engineering practice, and social service in teacher evaluation needs to be increased, and the classified evaluation and diversified incentive mechanisms need to be further improved.

III. Guiding Ideology and Construction Objectives

(I) Guiding Ideology

Guided by Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era, comprehensively implement the Party's education policy,implement the fundamental task of fostering virtue through education, take teacher ethics and style construction as the primary priority, take enhancing teachers' teaching capability and engineering practice capability as the core, take optimizing the faculty structure and expanding the team scale as the foundation, take improving the teacher development support system and innovation system and mechanisms as the guarantee, and strive to build a high-quality professional faculty team to provide strong talent support for the high-quality development of the college and the smooth passage of engineering education professional accreditation.

(II) Construction Objectives

Overall Objective: By 2030, build a faculty team with sufficient quantity, optimized structure, excellent quality, and distinctive characteristics. The student-faculty ratio will meet the standards required by engineering education accreditation, the proportion of teachers with senior professional titles will be stabilized at over 60%, the proportion of teachers with doctoral degrees will reach over 70%, the proportion of "dual-qualified" teachers will exceed 60%, and the overall teaching level, scientific research capability, and social service capability will be significantly improved, forming a faculty team development pattern that adapts to the needs of applied talent cultivation and professional accreditation.

Specific Objectives:

1. Team scale: The number of full-time faculty members will reach more than 20, and the student-faculty ratio will be controlled within 18:1 to meet the needs of professional teaching and practical guidance.

2. Professional title structure: More than 5 professors and more than 8 associate professors, with the proportion of senior professional titles stabilized at 60%–65%, forming a reasonable professional title echelon.

3. Educational background structure: More than 14 teachers with doctoral degrees, accounting for 70%; actively introduce and cultivate teachers with overseas study experience.

4. "Dual-qualified" team: More than 12 "dual-qualified" teachers with enterprise engineering practice experience or industry professional qualification certificates, accounting for over 60%.

5. Teaching capability: The excellent rate of teacher teaching evaluation will reach over 95%, 2–3 university-level and above teaching teams will be built, and 1–2 provincial-level and above teaching achievement awards will be obtained.

6. Scientific research capability: Undertake more than 10 provincial and ministerial-level and above scientific research projects, publish more than 30 SCI/EI indexed papers, obtain more than 10 authorized invention patents, and achieve significant growth in scientific research funds received.

IV. Main Tasks and Measures

(I) Optimize the Faculty Structure and Expand the Team Scale

1. Increase talent introduction efforts. According to the needs of professional development, formulate an annual talent introduction plan, focusing on introducing high-level talents and outstanding young doctoral graduates in disciplines such as electrical engineering, control science and engineering, and new energy science and engineering. Introduce 6–8 doctoral graduates within five years, including 2–3 talents at the professor or associate professor level.

2. Broaden talent introduction channels. Actively introduce outstanding talents at home and abroad through various methods such as campus recruitment, academic conferences, peer recommendations, and overseas talent introduction. Implement the university's talent introduction policies and provide support in terms of scientific research startup funds, housing subsidies, and team building.

3. Optimize the professional title evaluation mechanism. Improve the professional title evaluation standards for teachers, highlighting the orientation of teaching quality, engineering practice, and social service, and creating conditions for outstanding young teachers to stand out. Encourage eligible teachers to actively apply for senior professional titles, and promote 2–3 professors and 3–5 associate professors within five years.

4. Strengthen the construction of the part-time teacher team. Employ industry enterprise experts and senior engineers as part-time teachers to undertake practical teaching, graduation design

guidance, and special lectures, establish a relatively stable part-time teacher database, and the number of part-time teachers will reach more than 20% of full-time teachers.

(II) Strengthen Teacher Ethics and Style Construction

1. Strengthen teacher ethics education. Incorporate teacher ethics and style education into the mandatory content of teacher training, and guide teachers to strive to become "Four Haves" good teachers through various forms such as special study, typical publicity, and case warnings. Organize no less than 4 special study sessions on teacher ethics and style every year.

2. Improve teacher ethics assessment. Establish and improve the teacher ethics and style assessment and evaluation mechanism, take teacher ethics performance as the primary standard for teachers' annual assessment, professional title evaluation, excellence selection, and position appointment, and implement the "one-vote veto system" for teacher ethics.

3. Select and cultivate teacher ethics models. Regularly select and commend advanced models such as teacher ethics pacesetters, outstanding teachers, and outstanding class advisors, play a demonstrative and leading role, and create a good atmosphere of respecting teachers and valuing education, and advocating virtue and goodness.

(III) Enhance Teachers' Teaching Capability

1. Implement pre-job training for new teachers. Newly recruited teachers must participate in pre-job training organized by the university and obtain the higher education teacher qualification certificate. Implement the young teacher mentor system, equipping each new teacher with an instructor with rich teaching experience for one year to provide whole-process teaching guidance.

2. Conduct teaching capability improvement training. Regularly organize teachers to participate in special training on teaching method reform, curriculum ideology and politics construction, online teaching technology, and engineering education accreditation. Select 3–5 teachers each year to participate in off-campus teachingtraining or academic conferences, and encourage teachers to participate in various teaching competitions.

3. Promote curriculum ideology and politics construction. Integrate ideological and political education into the whole process of curriculum teaching, achieving the organic unity of knowledge imparting and value guidance. Build 3–5 curriculum ideology and politics demonstration courses, and cultivate 1–2 curriculum ideology and politics teaching teams.

4. Deepen teaching reform research. Encourage teachers to actively carry out teaching reform research, undertake 5–8 university-level and above teaching reform projects, compile 2–3 high-quality textbooks, and publish more than 10 teaching research papers.

5. Improve teaching quality monitoring. Establish and improve the teaching quality monitoring system, comprehensively monitor teaching quality through methods such as class observation and evaluation, student evaluation of teaching, peer review, and teaching supervision. Teacher teaching evaluation results are linked to performance distribution and excellence selection.

(IV) Promote "Dual-qualified" Team Construction

1. Establish an enterprise practice system. Formulate management measures for teacher enterprise practice, requiring professional teachers under 45 years old to accumulate no less than 6 months of practice in enterprises or production service frontlines every five years. Encourage teachers to use winter and summer vacations to take temporary training in enterprises and participate in technology R&D.

2. Strengthen engineering capability cultivation. Support teachers to obtain industry professional qualification certificates such as registered electrical engineers and registered constructors to enhance engineering practice capability. Reward teachers who obtain professional qualification certificates.

3. Deepen industry-education integration. Co-construct teacher cultivation and training bases with industry enterprises, establish teacher enterprise mobile positions, and promote two-way exchanges between teachers and enterprise engineers. Select 2–3 teachers each year for on-the-job practice in enterprises, and employ enterprise experts to give lectures at the university.

4. Encourage participation in engineering projects. Support teachers to participate in enterprise technological transformation, product R&D, engineering consulting and other projects, transform engineering practice experience into teaching cases, and improve practical teaching levels.

(V) Promote the Integration of Scientific Research and Teaching

1. Strengthen scientific research team construction. Form 3–4 scientific research teams around directions such as power system and automation, new energy power generation and grid connection, and intelligent control and detection, forming an echelon structure of team leader + backbone + young teachers. Support teams to apply for provincial and ministerial-level and above scientific research projects.

2. Promote scientific research to feed back into teaching. Encourage teachers to transform scientific research achievements into teaching content and update course cases and experimental projects. Support undergraduates to participate in teachers' scientific research projects, carry out college student innovation and entrepreneurship training program projects, and establish 5–8 university-level and above innovation projects each year.

3. Strengthen academic exchanges. Regularly hold academic lectures and scientific research forums to create a strong academic atmosphere. Encourage teachers to participate in domestic and foreign academic conferences, and select 5–8 person-times each year for academic exchanges. Actively invite well-known experts at home and abroad to give lectures at the university.

4. Enhance social service capability. Give full play to professional advantages, carry out technical services, personnel training, decision-making consulting and other services for industry enterprises, undertake 3–5 horizontal projects each year, and steadily increase social service funds received.

(VI) Strengthen Young Teacher Cultivation

1. Improve the mentor system. Equip each young teacher with a teaching mentor and a scientific research mentor, implement the "dual mentor" cultivation model, clarify mentor responsibilities and assessment requirements, and ensure effective results in passing on experience.

2. Formulate career development plans. Guide young teachers to formulate personal career development plans, clarify development goals and paths in teaching, scientific research, engineering practice and other aspects, and the college will provide preferential support in resource allocation and project application.

3. Support educational background improvement. Encourage eligible young teachers to pursue doctoral degrees on-the-job, and provide support in terms of study time and funds for teachers pursuing doctoral degrees. Support 2–3 teachers to pursue doctoral degrees on-the-job within five years.

4. Build growth platforms. Create opportunities for young teachers to participate in professional construction, curriculum construction, teaching reform, and scientific research projects, support young teachers to serve as course directors and professional secretaries, and temper and grow in practice.

(VII) Improve the Teacher Evaluation and Incentive Mechanism

1. Promote classified evaluation. According to teacher position types and responsibilities, establish a classified evaluation system for teaching-oriented, research-oriented, teaching-research balanced, and social service-oriented types, highlighting the core responsibilities and contributions of different types of teachers.

2. Strengthen teaching evaluation. Take teaching quality, teaching reform, curriculum construction, student guidance and other aspects as important content of teacher evaluation, and increase the weight of teaching performance in performance distribution and professional title evaluation. Establish teaching quality excellence awards to commend teachers with outstanding teaching performance.

3. Improve performance distribution. Establish and improve a performance distribution system oriented by performance contribution, tilting towards the teaching frontline, key positions, high-level talents, and teachers with outstanding performance, stimulating teachers' enthusiasm and creativity inpursuing careers.

4. Improve the honor system. Improve the teacher honor and commendation system, regularly select and commend outstanding teachers, outstanding education workers, teaching masters, scientific research pacesetters, etc., and enhance teachers' professional sense of honor and belonging.

V. Safeguard Measures

(I) Organizational Guarantee

Establish a leading group for faculty team construction work in the college, with the college Party secretary and dean serving as dual group leaders, the vice dean in charge as deputy group leader, and department directors, programme directors, and teacher representatives as members, to coordinate and promote various work of faculty team construction. Regularly hold special meetings to study and solve major problems in faculty team construction, ensuring that all tasks of the plan are implemented.

(II) Institutional Guarantee

Improve the supporting systems for faculty team construction, formulate management measures for talent introduction, teacher training, enterprise practice, mentor system, teaching evaluation, scientific research incentives, etc., forming a systematic and complete institutional system. Strengthen system implementation and supervision and inspection to ensure that all systems are effective.

(III) Funding Guarantee

Increase investment in faculty team construction funds, and arrange special funds each year for talent introduction, teacher training, enterprise practice, teaching reform, scientific research startup, etc. Actively seek funding support from the university and higher-level departments, broaden funding source channels, and provide solid funding guarantee for faculty team construction.

(IV) Conditional Guarantee

Strengthen the construction of conditions such as laboratories, scientific research platforms, and teacher studios to provide a good working environment for teachers' teaching and scientific research. Improve the functions of the teacher development center to provide professional services such as teaching consulting, teaching diagnosis, and career development for teachers. Care about teachers' physical and mental health and create a harmonious and stable working atmosphere.

VI. Expected Results

Through the implementation of this plan, by 2030, the college's faculty team construction will achieve remarkable results:

——The team scale will steadily expand, the structure will be continuously optimized, the student-faculty ratio will meet the standards of engineering education accreditation, and the professional title, educational background, academic origin, and age structures will be more reasonable, forming a professional faculty team with sufficient quantity and excellent quality.

——Teachers' teaching capability will be significantly enhanced, curriculum ideology and politics construction will be deeply promoted, teaching reform achievements will be fruitful,

teaching quality will be steadily improved, and student satisfaction and social recognition will continue to increase.

——The "dual-qualified" team construction will achieve obvious results, teachers' engineering practice capability and innovation capability will be significantly enhanced, industry-education integration will be deeply promoted, and the quality of applied talent cultivation will be comprehensively improved.

——Scientific research strength and social service capability will be significantly enhanced, the number of high-level scientific research projects and high-level scientific research achievements will steadily increase, scientific research team construction will achieve breakthroughs, and the capability to serve local economic and social development will be significantly improved.

——The teacher development support system will be more complete, the evaluation and incentive mechanism will be more scientific, teachers' professional sense of honor and belonging will be significantly enhanced, team stability and cohesion will be further improved, providing solid talent guarantee for the high-quality development of the college and professional accreditation.

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