

Evaluation and Benchmarking of the Diploma in Railway Power Supply Technology from Zhengzhou Railway Vocational & Technical College

Context and scope

Zhengzhou Railway Vocational & Technical College commissioned Ecctis for an independent evaluation and benchmarking of its Diploma in Railway Power Supply Technology, which was completed in August 2023.

The Diploma in Railway Power Supply Technology is one of 68 programmes currently offered by the College across subjects such as Engineering, Medicine, Literature, Management, Economics and Art.

The main aims of the benchmarking were to:

- Establish comparability in the context of the UK through reference to the Regulated Qualifications Framework (RQF), and by extension, the European Qualifications Framework (EQF)¹
- Assess the extent to which the College's underpinning quality assurance meets a set of international standards.

Key findings

The Diploma in Railway Power Supply Technology seeks to develop students' knowledge in a range of specialist occupational modules in areas such as the electrification of urban rail transit, fitter skills training, and catenary. In line with national requirements, the Diploma also encompasses "public basic courses" which include topics from arts, social sciences and science domains.

The general entry requirement for the programme is the National College Entrance Examination (NCEE, popularly known as the *gaokao* 高考) – comparable to GCE A Level / RQF Level 3 in the UK – or suitable marks in one of the College's own tests.

The Diploma is a three-year full-time programme equating to approximately 2738 hours' guided learning time. Reflecting its vocational focus, the Diploma combines classroom-based study with practical-based simulated learning and a 930-hour railway power supply internship within the final year of study.

¹ To date, a total of 36 countries have now referenced their national education systems to the EQF.

Upon completion, many students enter the workforce²; however, some students will be eligible to apply for top-up Benke (本科) / Bachelor degree programmes. These require a minimum of two years of further study, which shows that the Diploma has similar academic progression routes to that of HND, Diploma of Higher Education and other UK Level 5 awards.

The study revealed several strengths of the Diploma in Railway Power Supply Technology, namely that it demonstrated:

- The College programme is well structured in terms of subject matter groups and delivery sequence. The curriculum standards are also well structured and include a mapping of content to outcomes in the Curriculum Assessment and Evaluation table.
- The College's provision of highly technical facilities and digital platforms is a strength of the programme. Students can develop their practical skills in a number of specialised training rooms and laboratories which enhance their skills prior to entering professional posts within the industry.
- Student-led learning approaches are prioritised, with students actively engaging in problem-based-learning and peer evaluation.
- The balance of theory to practice is good for a college-based programme emphasising the vocational nature of the programme.
- 'On-the-job' training is an important and relevant feature of continuous professional development.
- Students have an opportunity to participate in programme monitoring and review.
- The interest group method allows for more individualised training; it encourages students to focus on areas they may wish to specialise in by allowing for narrower future professional pathways and advanced guidance for later performance.

In terms of international comparability, the Diploma in Railway Power Supply Technology has been found comparable to Level 5 of the RQF and EQF. It has also met international quality standards in the following five areas:

- **Admission**

There is a pre-defined and published admissions policy ensuring transparency in the admissions policy and supporting consistency in admissions decisions.

- **Programme development, approval, monitoring and review**

There is a clear, process in place for the design, approval and monitoring of programmes.

² The employment rate of graduates is typically 96.33%.

- **Teaching and learning**

There is a formalised process for monitoring the quality and effectiveness of delivery, relevant to the modes of study employed.

- **Assessment**

Assessment provides a sufficiently fair, valid and reliable evaluation of the intended knowledge, skills and competencies.

- **Information**

The information available to prospective students, current students and other interested stakeholders is accurate, transparent and clear for the intended audience.

Engagement

Zhengzhou Railway Vocational & Technical College has committed to further development and engagement encompassing:

- Undertaking a review of written exams to strengthen the questions posed, ensuring papers sufficiently test critical thinking skills such as analysis and evaluation.
- Ensuring that regulations and practices related to academic misconduct are clearly defined in a formalised written policy. Likewise, an Assessment Plan providing formal guidance to teachers designing assessments would improve consistency and quality between different modules.
- Maintaining and ensuring adoption by all staff of the unified quality assurance handbook.

Ecctis is a gold-standard provider of services in international education, training, and skills, and in the development and recognition of globally portable qualifications. We are an internationally trusted and respected reference point for qualifications and skills standards.

We are UK-based and operate worldwide, with a global network and client base spanning 62 countries and 5 continents. We have a 20-year track record in international consultancy and development.

Ecctis provides official UK national agency services on behalf of the UK Government in qualifications, skills, and migration – including UK ENIC, formerly UK NARIC.

UK ENIC is the UK National Information Centre for global qualifications and skills. Following the UK's leaving the EU, the former UK NARIC recognition agency function changes from a NARIC (which is an EU-only title) to an ENIC (the wider European title for national recognition agencies) in order to meet the UK's continuing treaty obligations under the [Lisbon Recognition Convention](#).

Since 2019, through our China representatives and Beijing office Nalike, and our UK China Council and UK NARIC China Council projects, we have conducted qualification benchmarking in China and fostered educational links between China and other countries, to support the internationalisation efforts of China's higher vocational colleges.