Europass certificate supplement (*)

1. Title of the certificate (A)

Diploma di Istruzione Tecnica

Indirizzo "ELETTRONICA ED ELETTROTECNICA"

Articolazione "ELETTROTECNICA"

(A) In the original language

2. Translated title of the certificate (B)

Upper secondary education diploma – Technical schools

ELECTRONICS AND ELECTRICAL ENGINEERING

Specialization: "ELECTRICAL ENGINEERING"

(B) If applicable. This translation has no legal status.

3. Profile of skills and competences (**)

On completion of the education/training pathway, the holder of the certificate is able to:

Skills common to all technical schools

- use the vocabulary and expressions of the Italian language based on communication needs in different contexts: social, cultural, scientific, economic, technological;
- establish links between local, national and international cultural traditions, in a cross-cultural perspective and for the purposes of study and work mobility;
- use the cultural tools and methodologies acquired to take on a rational, critical, creative and responsible attitude towards reality, the phenomena and problems encountered, also for lifelong learning purposes;
- use and develop visual communication and multimedia tools also with reference to the expressive strategies and technical tools of online communication;
- command the English language and, if applicable, another EU language and use the sectorial language related to the education pathway in order to interact within various communicative and professional contexts, at level B2 of the Common European Framework of Reference for Languages (CEFR);
- use the language and methods of mathematics to organise and adequately evaluate qualitative and quantitative information;
- identify and apply project management methods and techniques;
- write technical reports and document individual and group activities with regard to specific work situations;
- identify and use communication and team-working tools as appropriate to the sector organizational and professional contexts.

Skills of the *Electrical Engineering* specialization

- apply electronics and electrical engineering procedures to the study and design of electronic and electrical systems and equipment;
- use laboratory and industry tools and apply measurement methods to carry out checks, controls and tests;
- analyse the technical characteristics and various types of electrical machines and electronic equipment with regard to criteria of selection for their use and interfacing;
- manage projects;
- manage business function-related processes;
- use different levels of programming languages, in relation to specific application fields;
- analyse the operation of automatic systems; design and implement them.

The "Electrical Engineering" specialization introduces to the design, development and management of civil and industrial electrical systems.

4. Range of occupations accessible to the holder of the certificate

The certificate holder can work as a mid-level employee in public or private companies involved in the production, sourcing and distribution of traditional and renewable energies, electrical, electronic and civil and industrial automation system companies, water and sanitary, heating, climate-control, conditioning and cooling system companies, public and private companies involved in production and distribution, civil and industrial lifting systems, mining activities, earth moving machinery, fire protection, technical departments, in the following positions:

- technician responsible for design, manufacture and operation of civil and industrial electrical systems
- technician responsible for R&D, prototyping, testing of electrical and electronic appliances and automatic systems
- industrial electrical system installation and maintenance technician
- electrical and electronics support technician - also online (help desk)
- automated production control technician
- electrical/electronic designer
- electro-mechanical assembler
- sales operator of electrical/electronic/electromechanic equipment and consumer goods
- electrical material sale and assistance technician
- installation and maintenance technician of renewable energy systems (solar-thermal and photovoltaic, wind, geothermal)

Furthermore, he/she can work as a freelancer, in compliance with the applicable law, as:

- consultant for small and medium-sized businesses in the electronics, mechanics, energy and operating assets sectors
- owner of engineering firms within the industry
- owner of commercial businesses within the industry
- electrical system safety consultant

5. Official basis of the certificate

Name and status of the body awarding the certificate (***)	**Name and status of the national/regional authority providing accreditation/recognition of the certificate** Ministry of Education, University and Research www.istruzione.it
Level of the certificate (national or international) EQF level 4	**Grading scale / Pass requirements** State examination. Final grade out of 100. The full scale is used. Minimum passing grade to obtain the certificate: 60/ 100 A final grade of 100/100 cum laude can also be obtained.
Access to next level of education/training • Higher Technical Education and Training (IFTS) • Higher Technical Education (ITS) • Universities • Military Academies • Higher Level Arts and Music Education (AFAM)	**International agreements**
Legal basis Decree of the President of the Republic no. 88 of 15 March 2010	

6. Officially recognised ways of acquiring the certificate

Description of education/vocational training received	Percentage of total education/training programme (%)	Duration (hours/weeks/months/years)
School-/training centre-based		Standard learning: 1056 hours/year for 5 years
Workplace, internship / work placement / apprenticeship or school-work alternation		The certificate holder can have completed school-work alternation, internship, work placement or apprenticeship pathways and activities documented and officially recognised for the acquisition of the certificate.
Accredited prior learning		
Total duration of the education/training leading to the certificate		5 years

Entry requirements

Lower secondary school leaving diploma.

Additional information

Yearly school hours are divided into mandatory subjects and activities and optional subjects if provided for in the Educational Plan drawn up by each school.

Schools can allocate a percentage of the total hours of the national study plans (up to 20% in the first two years, 20% in the third and fourth years and 20% in the fifth year) to tailor curricula to local needs.

Schools can set up a scientific committee made up of teachers and work experts.

During the 5th year, a non-language-related subject is taught in English.

Activities and modules related to "Citizenship and Constitution" are envisaged in the historical-geographical and historical-social fields.

Details regarding the School/Certificate holder

School awarding the certificate:

PDTF02000E - ITI MARCONI-PADOVA

Name of the holder of the certificate:

Attachment of certificate no.:

(*) Explanatory note

This document is designed to provide additional information about the specified certificate and does not have any legal status in itself. The format of the description is based on the following texts: Council Resolution 93/C 49/01 of 3 December 1992 on the transparency of qualifications, Council Resolution 96/C 224/04 of 15 July 1996 on the transparency of vocational training certificates, and Recommendation 2001/613/EC of the European Parliament and of the Council of 10 July 2001 on mobility within the Community for students, persons undergoing training, volunteers, teachers and trainers.

More information available at: http://europass.cedefop.europa.eu

(**) The present document does not constitute/replace certification of the competencies of the certificate holder

(***) The reference data of this supplement are indicated in the last box