

### 1. Title of the certificate <sup>1</sup>

**Δίπλωμα Επαγγελματικής Ειδικότητας Εκπαίδευσης και Κατάρτισης Επιπέδου 5 Ειδικότητα Ι.Ε.Κ.:  
ΤΕΧΝΙΚΟΣ ΜΗΧΑΝΟΤΡΟΝΙΚΗΣ**

### 2. Translated title of the certificate <sup>2</sup>

**Vocational Training Diploma Initial Vocational Training (I.E.K.) Level 5 Specialty of I.E.K.:  
MECHATRONICS TECHNICIAN**

### 3. Profile of skills and competences

LEARNING OUTCOMES (KNOWLEDGE, SKILLS, COMPETENCES). A typical holder of the certificate is able to:

#### KNOWLEDGE

- Identify the types of engines and the types of subsystems of automobiles - vehicles, motorbikes and mopeds, of conventional and new technology.
- Describe the basic principles of operation of an engine running on diesel oil or petrol, the exhaust system, the fuel supply systems, and the subsystems thereof, in vehicles, motorbikes, and mopeds (fuel pumps, nozzles, auxiliary oil pumps, etc.) and the legislation on noise emission.
- Identify the basic principles of operation of the systems used for transmission, for braking, for suspension, for steering, of the differential systems, of lubrication systems, of hydraulics systems, and of the various mechanisms thereof in the vehicles.
- Present the basic operation principles for the electrical, electronic, and automation systems and the various mechanisms thereof, including the basic principles of operation of automated, semi-automated, and mechanical gearboxes and clutch systems.
- Explain the basic principles of operation of the automobile - vehicle air conditioning systems, and the basic principles of operation of air compressor systems.
- Identify the fuels and the lubricants used.
- Present the principles for organizing and operating a machine shop.
- Interpret the mechanical drawings of systems and accessories in automobiles - vehicles, motorcycles and mopeds, and sketch their parts.
- State the basic elements of applied mechanical engineering, material strength, engine components, mechatronics design, electrical engineering and sensors, thermal machines, internal combustion engines, vehicle handling, Vehicle Dynamics and Computer - Remote Control Networks.
- Extract results from simple calculations, by performing simple and basic calculations with the purpose of finding figures in simple applications (volume measurement, unit conversion, etc.).
- State the basic concepts of his/her profession in English, using the concepts of the profession and technical terms.

#### SKILLS

- Use suitable tools and instruments of technical measurements and testing (callipers, micrometers, multimeters, and automation), using them properly and safely.
- Apply the safety regulations (e.g. on fire safety) and the law on the protection of employees, of the work site, and of the environment.
- Use advanced diagnostics methods (LED, parallel, OBD I & OBD II).
- Locate malfunctions in systems used for transmission, steering, braking, suspension, differential systems, lubrication, hydraulics, and the various mechanisms thereof, in the engine and its subsystems, proceeding to the restoration thereof.
- Use technical terminology, the service manuals and the parts book of automobiles - vehicles, motorcycles, and mopeds.
- Properly operate and maintain tools, machinery and devices, considering general instructions, technical specifications, technical manuals, regulations and specifications regarding work safety.
- Provide first aid in the event of minor accidents.
- Handle his/her electronic correspondence, use an office suite for simple applications (preparation of offers, reports, clientele, etc.) and locate basic information related to the subject of his work in the internet.
- Organise his/her work site, keeping it orderly and clean during work.
- Manage the wastes created (hydraulic liquids, lubricants, air filters, oil filters, etc.).
- Calculate and cost the works and materials referring to the repair and maintenance, will issuing bills of quantities.

#### COMPETENCES

- Satisfactorily assess the conditions during work and select the best possible technical and financial solutions.
- Responsibly apply the personal protection equipment and health equipment imposed by law.
- Work by combining the above knowledge and skills in different environments, through a dependent-employment or freelancing relation, as an employee of a small or large business or autonomously, taking the initiative and adjusting his/her behaviour to the various conditions.
- Act both under the instructions of an engineer / superior and autonomously, within the framework of responsibility that applies to him/her from the applicable law.
- Look for the latest information and technological data in his/her profession, by revising his/her initial knowledge.
- Develop constructive and unproblematic collaborations through proper communication both with the customers and with their colleagues, whether receiving or executing instructions.

<sup>1</sup> In the original language. | <sup>2</sup> If applicable. This translation has no legal status. | <sup>3</sup> If applicable.

#### 4. Range of occupations accessible to the holder of the certificate <sup>3</sup>

The holder of the Diploma of this specialization can be employed in all the professional areas of the private or the public sector dealing with the construction, maintenance, diagnosis, repair and control of all car parts and systems.  
The Vocational Training Diploma is recognised as a qualification for appointment in the public sector falling in the category S.E. (Secondary Education) according to the Presidential Decree no.50/2001 (Greek Official Gazette 39/Vol.A/5-3-2001).

#### 5. Official basis of the certificate

##### Body awarding the certificate

E.O.P.P.E.P.  
(National Organisation for the Certification of Qualifications and Vocational Guidance )  
Ethnikis Antistaseos 41 Avenue, 142 34 N. Ionia  
<https://www.eoppep.gr/>

##### Level of the certificate (national or European) <sup>1</sup>

Level 5 National and European Qualifications Framework

##### Access to next level of education / training <sup>1</sup>

Yes

##### Authority providing accreditation / recognition of the certificate

E.O.P.P.E.P.  
(National Organisation for the Certification of Qualifications and Vocational Guidance )  
Ethnikis Antistaseos 41 Avenue, 142 34 N. Ionia  
<https://www.eoppep.gr/>

##### Grading scale / Pass requirements

a) acquisition of the Vocational Training Certificate (V.E.K.) after successful completion of study at the Vocational Training Institute (I.E.K.)  
b) acquisition of the Vocational Training Diploma after:  
1. success in the theoretical part of Initial Vocational Training certification examinations (Grading scale = 1-20, Pass = 10) and  
2. success in the practical part of the Initial Vocational Training certification examinations (Pass/Fail)

##### International agreements on recognition of qualifications <sup>1</sup>

No

##### Legal basis

Law 2009/1992 on the National System of Vocational Education and Training  
Law 4186/2013 on the Restructure of Secondary Education  
Law 4763/2020 on National System of Vocational Education, Training and Lifelong Learning

#### 6. Officially recognised ways of acquiring the certificate

Total duration of the education / training leading to the certificate  
Success in the the Initial Vocational Training certification examinations  
4 semesters (until law 4186/2013) / 5 semesters (after law 4186/2013)

#### 7. Additional information

##### Entry requirements <sup>1</sup>

Certificate of Upper Secondary School. Qualification of Level 4 (NQF/EQF) // Certificate Vocational Training School (SEK) – Qualification of Level 3 (NQF/EQF)

Following the voting of L. 4763/2020, only by an Upper Secondary Education certificate or an equivalent title of studies (Qualification of Level 4 NQF/EQF)

##### Indicative subjects taught:

Hygiene and Safety at Work - Environment, Vehicle Dynamics, Electric and Electronic Car Systems, Automatic Car Control Systems, Structure and Function of Computer Units, Applied Engineering, Car Operation Systems, Power Production and Transmission Systems, Mechanotronic Design, Computer Networks-Telematics, Car Repair and Maintenance, Communication Technique-Entrepreneurship, Garage Organisation, Operation & Standardisation, Car Fault Diagnosis, Application-Seminar, Automotive Alternatives and New Technologies, English, Use of PC

##### More information

National Qualifications Framework : <https://nqf.gov.gr/> and <https://proson.eoppep.gr/en>

National Europass Centre: **EL/NEC - E.O.P.P.E.P.** National Organisation for the Certification of Qualifications and Vocational Guidance, Ethnikis Antistaseos 41 Avenue, 142 34 N. Ionia, Greece. T.0030 2102709000 [europass@eoppep.gr](mailto:europass@eoppep.gr)  
<http://europass.eoppep.gr> [www.eoppep.gr](http://www.eoppep.gr)

<sup>1</sup> If applicable.