

*This Diploma Supplement follows the model developed by the European Commission, Council of Europe and the United Nations Educational, Scientific and Cultural Organization (UNESCO/CEPES). The purpose of the supplement is to provide sufficient independent data and ensure academic and professional recognition of qualifications (diplomas, degrees, certificates etc.). It is designed to provide a description of the nature, level, context and status of the studies that were pursued and successfully completed by the individual named on the original qualification to which this supplement is appended. It should be free from any value judgements, equivalence statements or suggestions about recognition. Information in all eight sections should be provided. Where information is not provided, the reason should be explained.*

## **DIPLOMA SUPPLEMENT (Diploma PDG Nr. 2032)**

### **1. INFORMATION IDENTIFYING THE HOLDER OF THE QUALIFICATION:**

1.1 Family name(s): **Endzele**

1.2 Given name(s): **Sarmīte**

1.3 Date of birth (day/ month/ year): **23.11.1979.**

1.4 Student identification number or personal identification number: **MT19001**

### **2. INFORMATION IDENTIFYING THE QUALIFICATION:**

2.1 Name of qualification (in original language):

**Profesionālais bakalaura grāds mehatronikā un profesionālā kvalifikācija Mehatronikas inženieris**

2.2 Main field(s) of study for the qualification:

**electronics and mechanics, electrical engineering, automation, electricity and electrical equipment, electro-pneumatic automation; computer programs in mechanical engineering, applications and programming of programmable logical controllers; mechanical engineering training; monitoring, maintenance and repairs of mechatronic equipment/systems; robots and robot management systems; industrial automated processes**

2.3 Name (in original language) and status of awarding institution:

**Vidzemes Augstskola, state-accredited (17.01.2002), state-founded, non-university type**

2.4 Name (in original language) and status of institution administering studies in Latvian: **the same as in point 2.3.**

2.5. Language(s) of instruction/examination: **Latvian**

### **3. INFORMATION ON THE LEVEL OF THE QUALIFICATION:**

3.1 Level of qualification:

**The 5th level professional qualification and level 6 of the Latvian Qualifications Framework (henceforth – LQF) and European Qualifications Framework (henceforth – EQF)**

3.2 Official length of programme, start and end date of the acquisition of the programme:

**4 years full-time studies, 160 Latvian credit points, 240 ECTS credits, 30.08.2019. - 30.06.2023.**

3.3 Admission requirements:



#### 4. INFORMATION ON THE CONTENTS AND RESULTS GAINED:

##### 4.1 Mode of study: *Full-time*

##### 4.2 Programme requirements (programme aims and intended results of studies):

*The aim of the study programme is to prepare qualified specialists – mechatronics for professional activities in economic sectors, in which the management of mechanisms with the help of electronics and computer equipment is carried out and whose theoretical and practical knowledge, as well as skills, skills and attitudes would meet the requirements of the modern labour market, and who would be able to undertake and perform the duties specified in the standard of this profession: installation, implementation and operation of mechatronic equipment; measurement of parameters of mechatronic equipment; planning, regulation and ensuring long-term, efficient operation. In order to achieve the set goal, the programme envisages to provide knowledge, to develop and develop a set of skills, skills and attitudes necessary for the performance of professional activities according to the qualification of a mechatronics. Knowledge in the basics of economics and logistics, practical personnel management, technical mechanics and material resistance, programming, theory of machine mechanisms, materials science, power supply and metalworking. Skills to navigate mechanical, pneumatic, hydraulic, electrical and electronic systems, automatic adjustment techniques and their schemes, find and prevent damage and service in mechatronic systems, skills to use diagnostic equipment and measuring instruments, know and program programmable logic controllers (PLK). Communicative skills and teamwork.*

##### 4.3. Programme details and the individual grades/ credits obtained/marks:

##### COMPULSORY COURSES

Course title	Credit points	ECTS credits	Grade
Mathematics in Higher Level	4	6	8 (very good)
English for Mechatronics I	2	3	7 (good)
English for Mechatronics II	2	3	7 (good)
Basic Business and Logistics	2	3	8 (very good)
Computer Operations and Administration	2	3	6 (almost good)
Work, Environment and Civil Protection	2	3	6 (almost good)
Mathematics in Engineering Calculations	4	6	8 (very good)
Introduction to Communication and Practical Personal Management	2	3	8 (very good)
Russian	2	3	9 (excellent)

##### RESTRICTED ELECTIVE COURSES

Course title	Credit points	ECTS credits	Grade
Physics I	2	3	7 (good)
Physics II	2	3	8 (very good)
Mechanical Engineering Drawing	2	3	10 (with distinction)
Programming Basics (C++)	2	3	6 (almost good)
Technical Mechanics and Material Strength	2	3	7 (good)
Materials Science	2	3	9 (excellent)
Introduction in Speciality	2	3	passed
Theory of Machine Mechanisms	2	3	4 (almost satisfactory)
Electropneumatics II	2	3	6 (almost good)
Probability Theory and Mathematical Statistics	2	3	5 (satisfactory)
Adjustments, Tolerances and Technical Measurements	2	3	9 (excellent)
Electrotechnic	4	6	7 (good)
Electrical Documentation	2	3	5 (satisfactory)
Basics of Designing	2	3	8 (very good)
Computer Programs in Engineering Mechanics	2	3	9 (excellent)
Automation System Components	2	3	9 (excellent)
Computer Architecture I	2	3	5 (satisfactory)
Computer Architecture II	2	3	8 (very good)
Programmable Logic Controller (PLC) - Usage and Programming	4	6	8 (very good)
Programming of Programmable Logic Controllers I	4	6	7 (good)
Programming of Programmable Logic Controllers II	4	6	6 (almost good)
Project Management in Engineering	2	3	7 (good)



Basics of Electric Machines	2	3	7 (good)
Electrical Measurements	2	3	9 (excellent)
Basic Electronics	4	6	9 (excellent)
Drive Technology Systems	2	3	7 (good)
Drive Technology Systems II	2	3	7 (good)
Automated Design	4	6	6 (almost good)
Internet of Things (IoT) and Sensor Networks	4	6	10 (with distinction)
Power Supply and Electrical Appliances	2	3	9 (excellent)
Organization of Production and Services	2	3	7 (good)
Industrial Process Visualisation Systems	2	3	8 (very good)
Design of Automatic Control Systems	4	6	7 (good)
Robots and Robot Control Systems	4	6	6 (almost good)
Sensors and Their Application	2	3	5 (satisfactory)
"Electropneumatic Automation II" (VIDZEME UNIVERSITY OF APPLIED SCIENCES, VIDZEMES INNOVATION PROGRAM FOR STUDENTS - VIPs, Latvia, recognized with commission's decision No.16 for recognition of learning outcomes, 15.06.2023) (passed in Vidzeme University of Applied Sciences, Commission for Recognition of Learning Outcomes (Latvia), 12.04.2022. - 21.04.2023.)	2	3	pass
"Industrial Automated Process Visualisation II" (VIDZEME UNIVERSITY OF APPLIED SCIENCES, VIDZEMES INNOVATION PROGRAM FOR STUDENTS - VIPs, Latvia, recognized with commission's decision No.16 for recognition of learning outcomes, 15.06.2023) (passed in Vidzeme University of Applied Sciences, Commission for Recognition of Learning Outcomes (Latvia), 12.04.2022. - 21.04.2023.)	4	6	pass

#### ELECTIVE COURSES

Course title	Credit points	ECTS credits	Grade
Software Development Principles From Operations Perspective	4	6	6 (almost good)
Introduction to Mobile Technologies	2	3	6 (almost good)

#### COURSE PAPERS/PROJECTS

Course title	Credit points	ECTS credits	Grade
Study Work II "Robots and Robot Control Systems"	2	3	7 (good)
Study Work I "Drive Technology Systems"	2	3	8 (very good)
Study Paper III "Automatic Control Systems"	2	3	8 (very good)

#### PRACTICAL TRAINING

Course title	Credit points	ECTS credits	Grade
Introductory Internship	4	6	8 (very good)
Manufacturing Internship	8	12	8 (very good)
Pre-Diploma Internship	8	12	6 (almost good)

#### STATE EXAMINATION

Bachelor Thesis	12	18	6 (almost good)
Theme Title: Microclimate control system of the utility room with remote control for storing potatoes, vegetables and fruits			
Total	160	240	



4.4 Grading scheme and grade distribution guidance, if available:

Grade (meaning)	Frequency of the grade among the graduates of the programme in question
10 (with distinction)	5%
9 (excellent)	16%
8 (very good)	24%
7 (good)	29%
6 (almost good)	14%
5 (satisfactory)	8%
4 (almost satisfactory)	4%
3-1 (unsatisfactory)	0%

*The holder of the qualification weighed average grade: 7.17*

4.5 Overall classification of the qualification (in original language): **"Standarta"**

*Classification "Standarta" awarding criteria see p.6.1.*

5. INFORMATION ON THE QUALIFICATION:

5.1 Access to further study:

*Access to Master programmes*

5.2 Professional status:

*It is not foreseen to award a professional status*

6. ADDITIONAL INFORMATION AND SOURCES:

6.1 Additional information:

*This diploma supplement is valid with the diploma series PDG Nr. 2032*

*Vidzeme University of Applied Sciences bachelor's degree of higher professional education programme "Mechatronics" is accredited from 25.09.2017. till 30.12.2023.*

**Appendix for item 3.2.**

*According to the decision No.16 of the Commission of learning outcomes recognition at Vidzeme University of Applied Sciences on 15.06.2023., the student receives 6 credit points (9 ECTS) as part of Vidzeme University of Applied Sciences Professional bachelor's study programme „Mechatronics" ELECTIVE MODULE for recognition of acquired professional experience outcomes in organization: VIDZEME UNIVERSITY OF APPLIED SCIENCES, VIDZEMES INNOVATION PROGRAM FOR STUDENTS - VIPs (Latvia, April 2022 - April 2023).*

**Appendix for item 4.4.**

*weighed average grade of the holder of the qualification is calculated as:  $av = \sum(a \cdot f) / \sum(f)$ , where: av-weighed average grade, a-grade in each course of A and B part of the programme, f-course workload in credit points.*

**Appendix for item 4.5.**

*Classification "Standarta" awarding criteria: The programme requirements are fulfilled.*

*The fifth level of qualification - the highest qualification of a specialist of a branch, which enables to plan and carry out scientific research in the respective branch.*

6.2 Further information sources:

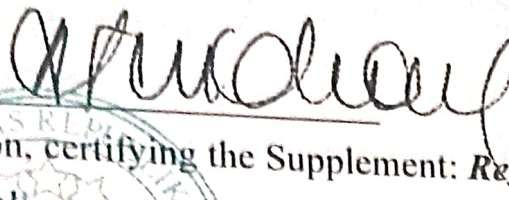
*Vidzeme University of Applied Sciences,  
Cesu 4, Valmiera, Latvia, LV4200, Latvia, telephone: +371-64207230, fax: +371-64207229,  
e-mail: info@va.lv, website: www.va.lv*

*Academic Information Centre (ENIC/NARIC in Latvia),  
Valnu 2, Riga, Latvia, LV1050, telephone +3716-7225155, fax: +371-67221006,  
e-mail: diplomu@aic.lv, website: www.aic.lv*

7. CERTIFICATION OF THE SUPPLEMENT:

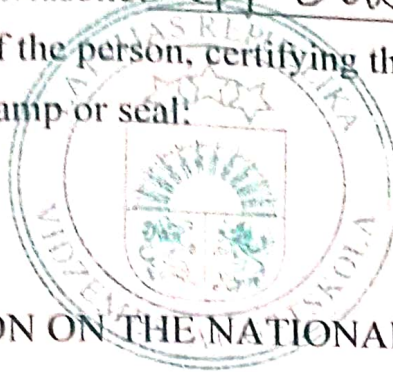
7.1 Date: 30.06.2023.

7.2. Agnese Dāvidsone:



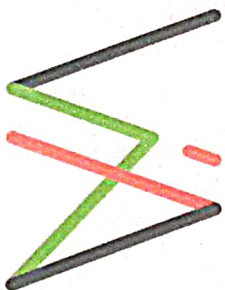
7.3. Position of the person, certifying the Supplement: *Rector*

7.4. Official stamp or seal:



8. INFORMATION ON THE NATIONAL HIGHER EDUCATION SYSTEM:

*See the next page*



# VIDZEMES AUGSTSKOLA

## PROFESIONĀLĀ BAKALAURA DIPLOMS

Sērija PD G  
Nr. 2032 \*

Ar Vidzemes Augstskolas profesionālās augstākās izglītības  
bakalaura studiju programmas "Mehatronika" valsts  
pārbaudījuma komisijas  
2023. gada 9. jūnija lēmumu Nr. 2

**Sarmīte Endzele**  
personas kods 231179-10529

ieguvusi

**PROFESIONĀLO BAKALAURA GRĀDU**  
**mehatronikā**

un

**mehatronikas inženiera**  
**kvalifikāciju**

Iegūtā kvalifikācija atbilst piektajam profesionālās  
kvalifikācijas līmenim



**Rektore**

**Agnese Dāvidsone**

**Valsts pārbaudījuma**

**komisijas priekšsēdētājs**

**Kristaps Vītols**

Valmierā, 2023. gada 30. jūnijā  
Reģistrācijas Nr. 0016







VIDZEMES

AUGSTSKOLA

DIPLOMS