

## **COOPERATION AGREEMENT**

concerning a

### **Double Diploma Master Programs**

between

**Riga Technical University**

- hereinafter referred to as RTU

of Master Degree Program in Computerised Control of Electrical Technologies

and

**Mongolian University of Science and Technology**

- hereinafter referred to as MUST

of Master Degree Program in Electronics Engineering

**leading to the award of the Double Diploma**

of Master Degree of Engineering Science in Electrical Engineering at RTU

and

of Master Degree of Science in Electronics Engineering at MUST

## **1. Preamble**

- 1.1. This Cooperation Agreement between the signatories is an expression of their desire to promote international students and staff mobility and to help raise educational standards by means of the various forms of university exchange and collaborations, particularly the award of Double Diploma.
- 1.2. The cooperation involves the exchange of students and enables students from MUST to spend a period of their studies at RTU.
- 1.3. The degree courses in RTU and MUST are well-established programs of equivalent quality and with similar assessment procedures. The master's degree programs, namely, the master program "Computerised Control of Electrical Technologies" at RTU is an accredited study program (Accreditation Sheet No. 2020/40). The master's degree program "Electronics Engineering" at MUST is approved by the Academic Council of MUST and is licensed by the Ministry of Education and Science of Mongolia. The MUST is a third-time accredited university by the Mongolian National Council for Education Accreditation.

## **2. Terminology**

- 2.1. Double Diploma program (Program) in the context of this Agreement means two separate diplomas (one of MUST and another of RTU), each of them being issued to students of MUST for the successful completion of the accredited study programs.
- 2.2. CEFR: Common European Framework of Reference for Languages.
- 2.3. Partner institutions in the context of this Agreement mean RTU and MUST.

## **3. Cooperation Aspects**

### **3.1. Aim of the Program**

- 3.1.1. The aim of the Program is to provide students with the professional skills needed to enter a successful career in the field of computerized control for electrical and electronic technologies as a highly educated specialist with the foreknowledge of new technology development and industry trends.
- 3.1.2. The Program will allow students of MUST to obtain both MUST and RTU master degrees, and the Double Diploma option will be available only for the students enrolled in the selected degree program at MUST.
- 3.1.3. The Program supports the exchange of students and teaching staff between both institutions.
- 3.1.4. The partners will do their best to promote the exchange of teaching staff and researchers. Each partner agrees to offer the necessary educational facilities to a faculty member participating in an exchange. Each partner institution will be responsible for the remuneration and other expenses of their own staff during periods spent at the host institution.
- 3.1.5. The Double Diploma Program appreciates study and examination regulations of both involved degree programs.

### **3.2. Coordination**

At each partner university, a Program Coordinator will coordinate and oversee the activities of the Program as outlined and in accordance with this Agreement. The Program Coordinators have joint responsibility, they will create the conditions for implementing and developing the Double Diploma Program, provide ground rules for

structuring and approving the study plans, make necessary changes in the Program taking into account the study and examination regulations of RTU and MUST.

#### **4. General Information**

##### **4.1. Program Planning**

4.1.1. Studies will be implemented as regulated by each undersigning university. The Program comprises four semesters for students of MUST (80 Latvian credits = 120 ECTS). See Annex 1: Program Structure and Annex 3: Study Plan for Students of MUST).

4.1.2. For students of MUST the mobility and study period will be the following:

- 1<sup>st</sup> Semester: Courses at RTU
- 2<sup>nd</sup> Semester: Courses at RTU
- 3<sup>rd</sup> Semester: Courses at MUST
- 4<sup>th</sup> Semester: Master Thesis at MUST and RTU.

4.1.3. The students must have studies at RTU at least for one academic year.

##### **4.2. Admission Requirements and Selection Procedure**

4.2.1. The Double Diploma Program will be available only for the students enrolled in the MUST Master Program “Electronics Engineering”. Students will have to meet the entry requirements of their own home institution.

4.2.2. The partner institutions will actively promote the opportunities provided by the Program among the students, and the respective international student offices will provide assistance to prospective applicants.

4.2.3. The student selection will be conducted on a transparent and competitive basis at the home institution - MUST. The host institution – RTU will make the final decision on the acceptance of each student.

4.2.4. Prior to going abroad and will have a high level of competence in English acquired, i.e., minimum B2 level according to CEFR. A basic level of competence in Latvian (A1) is recommended, but not compulsory.

##### **4.3. Tuition Fees and Living Costs**

4.3.1. Double Diploma students from MUST will pay the RTU standard/regular tuition fee for non-EU/EEA residents. The tuition fee for non-EU/EEA residents each year is revised and approved by the RTU Senate.

4.3.2. Exchange students are responsible for their own travel and living costs, as well as for all indirect costs associated with the exchange such as books, insurance and other fees. Exchange students must provide a health insurance for the total exchange period. If they are unable to prove that, they shall buy a health insurance in the host country.

4.3.3. RTU will issue all necessary documents free of charge related to the legal (immigration) procedures to enter and stay in Latvia. The visa and residency permit charges (if any) will have to be paid by the respective student.

4.3.4. RTU Faculty of Electrical and Environmental Engineering will fund the studies of three first MUST students in accordance with Article 4.3.1.

## **5. General Obligations**

- 5.1. Partners are jointly and severally responsible for carrying out the activities attributed to them, and shall conduct the work in accordance with the work programme and schedule set forth in the Agreement, working to the best of their abilities to achieve the defined results and taking full responsibility for their work in accordance with the accepted professional principles.
- 5.2. Partners undertake to comply with all provisions of the Agreement and Annexes thereto, as well as with all applicable EU and national regulatory enactments.
- 5.3. Partners are jointly and severally responsible for complying with any legal obligation's incumbent on them jointly or individually.
- 5.4. Partners shall provide staff, facilities, equipment and materials to the extent needed for executing the activities as specified in the work programme.

## **6. Program of Study**

### **6.1. Program Structure**

- 6.1.1. The design and content of the Program have been discussed in detail by both partner universities and are determined by the respective examination and study regulations. The partner universities will take care to update each other on any modification envisaged for their internal regulations that affect the Double Diploma Program.
- 6.1.2. MUST students will attend the courses together with the students of the respective Program; individual consultations also will be available for them.
- 6.1.3. RTU will assist exchange students with the organisation of their study period, particularly with respect to registration formalities and course coordination.

### **6.2. Master Thesis**

- 6.2.1. Master Thesis shall be written in English.
- 6.2.2. RTU will individually provide official transcripts (in English) for all Double Diploma students participating in the Program. The transcripts will include the list of courses and credits taken at RTU during the mobility period.
- 6.2.3. RTU will award its Diploma of Master Degree of Engineering Science in Electrical Science to MUST students, who have successfully completed the Double Diploma Program mobility period and have fulfilled all requirements of the respective RTU degree, including a defence of their Master Thesis in front of a committee chaired by RTU (online if not possible otherwise) and with academic representation from MUST.

## **7. Assessments**

- 7.1. Students MUST will take semester examinations for the study modules of the Program according to the study and examination regulations of the respective institution and programs in which they study. The academic performance during the mobility period at RTU will be evaluated according to the regulations of RTU.
- 7.2. In the case of a re-sit or a deferred examination, the regulations of the institution where examination has been failed or not taken shall be applied.

## **8. Award Procedures**

- 8.1. Upon completion of the Program and fulfilment of the formal requirements of both partner institutions, the students of MUST will be awarded:
  - 8.1.1. the Diploma of Master Degree of Engineering Science in Electrical Science at RTU;
  - 8.1.2. the Diploma of Master Degree of Science in Electronics Engineering at MUST.
- 8.2. Each Diploma will have a Diploma Supplement, indicating the study courses acquired at the other university.

## **9. Quality Assurance**

- 9.1. Both partner universities will ensure that the Program meets, in all respects, the requirements of the respective institutional and national quality assurance authorities.
- 9.2. Quality management is based on the "Standards and Guidelines for Quality Assurance in the European Higher Education Area", which the partners implement within the framework of their country-specific regulations. Quality is the result of an interaction between the academic staff, students and the institutional learning environment. Quality assurance is intended to ensure a learning environment in which the study content, the learning opportunities and the institutions are suitable for their purpose.

## **10. Validity, Amendments and Termination**

- 10.1. This Agreement comes into force when signed by the designated signatories of both partner institutions and will be valid for 5 (five) years. The Agreement can be updated by a written agreement of partner institutions.
- 10.2. In the event it becomes necessary to amend the provisions of this Cooperation Agreement in the process of accreditation of the study programs of both partners, then the partner will sign an additional amend to the cooperation agreement on these changes.
- 10.3. Any amendments or supplements hereto shall be made in writing and signed by the legitimate and responsible authorities of each partner university.
- 10.4. Either Partner may terminate this Agreement unilaterally in writing. Termination shall take effect at the end of the academic year provided that it is made before 1 February of the same academic year. Termination shall not affect exchange students already accepted in the Double Diploma Program.
- 10.5. Each Partner institution designates the following academic staff members to serve as the liaison for coordinating and facilitating the activities under this Agreement:
  - 10.5.1. RTU: Prof. Dr Oskars Krievs, Dean of Faculty of Electrical and Environmental Engineering, e-mail: [Oskars.Krievs@rtu.lv](mailto:Oskars.Krievs@rtu.lv).
  - 10.5.2. MUST: Prof. Dr Narantsetseg Yadmaa, Director of the Graduate School of Engineering, e-mail: [yanaran@must.edu.mn](mailto:yanaran@must.edu.mn)

## **11. Confidentiality and Data Protection**

- 11.1. Partners undertake to preserve the confidentiality of any documents, information or other materials directly related to the subject of the Agreement that are duly and explicitly classified as confidential ('Confidential Information').
- 11.2. Neither Partner shall disclose any Confidential Information received from the other Partner to any third party, nor shall use it for any other purpose except for carrying out

the Agreement, during the Agreement validity period and within five (5) years after the termination and/or expiration of this Agreement.

- 11.3. None of the Partners shall be in breach of any obligations regarding the Confidential Information and shall not disclose it to any third party to the extent that it:
  - 11.3.1. is part of the public domain without violation of this Agreement;
  - 11.3.2. is known and on record at the receiving partner prior to disclosure by the disclosing partner;
  - 11.3.3. is lawfully obtained by the receiving partner from a third partner who is not bound by similar confidentiality obligations;
  - 11.3.4. is developed by the receiving partner completely independently of any such disclosure by the disclosing partner;
  - 11.3.5. is ascertainable from a commercially available product; or
  - 11.3.6. is disclosed pursuant to mandatory law, regulation or administrative or judicial action.
- 11.4. Each partner shall promptly advise the other partner in writing of any unauthorised disclosure, misappropriation or misuse of the Confidential Information after it becomes aware of such unauthorised disclosure, misappropriation or misuse.
- 11.5. All personal data contained in or relating to this Agreement shall be processed in accordance with the dispositions of the Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation).

## **12. Final Provisions and Commencement**

- 12.1. If either Partner faces a case of force majeure, it shall promptly notify the other Partner in writing about it, specifying the nature, probable duration and expected effects of this event.
- 12.2. None of the Partners shall be deemed in breach of their obligations if they have been prevented from performing their tasks due to force majeure. The respective Partner shall take all necessary measures to minimise possible damage to the successful implementation of the Project.
- 12.3. Each of the Partners shall discharge the other of any civil liability for any damages incurred to it or its staff/students as a result of the performance of this Agreement, insofar as such damages are not incurred through a gross or intentional negligence or fault of the other Partner or its staff/students.
- 12.4. This Agreement is governed by and construed in accordance with laws of Republic of Latvia. Any dispute arising out of or in connection with this Agreement shall be resolved by conciliation and negotiation between the Partners. If the partners fail to do so within 30 (thirty) days, the dispute shall be finally settled by competence courts of the Republic of Latvia.
- 12.5. Each Partner Program copyrights shall be strictly safeguarded and permission for reproduction and scale of production has to be settled beforehand.
- 12.6. If any provision of this Agreement or the application of any such provision shall be considered invalid or unenforceable in whole or in part for legal requirements, all other stipulations shall remain valid and binding to both Partners.
- 12.7. The Agreement is drawn up in English in two copies and will come into force upon its signature with Annexes:

- Annex 1 - Program Structure
- Annex 2 - Courses Alignment Table
- Annex 3 - Study Plan for Students of MUST

We, the undersigned, declare to have read and accepted the terms and conditions of this Agreement as described here before, including the Annexes thereto.

Signature and stamp

Done in Riga

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Vice-Rector for Academic Affairs

Prof. **Uldis Sukovskis**

Date

Signature and stamp

Done in Ulaanbaatar

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Vice-President for Academic Affairs

Prof. **Khaltar Enkhjargal**

Date

**Annex 1: Program Structure Annex 1: Program Structure**

	S1: Fall semester	S2: Spring semester	S3: Fall semester	S4: Spring semester
MUST students: 4 semesters 120 ECTS	Courses at RTU 30 ECTS	Courses at RTU 30 ECTS	Courses at MUST: 30 ECTS (additional semester)	Master thesis 30 ECTS

Signature and stamp

Done in Riga

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Vice-Rector for Academic Affairs

Prof. **Uldis Sukovskis**

Date

Signature and stamp

Done in Ulaanbaatar

.....

Vice-President for Academic Affairs

Prof. **Khaltar Enkhjargal**

Date



## Annex 2: Courses Alignment Table

No	Code	RTU Study Program	MUST subjects (credit transfer plan) ECTS	(RTU) ECTS
<b>A</b>	<b>Compulsory study courses</b>			<b>64.5</b>
1	EEP584	Theory of Electronic Converters of Electrical Energy	To be acquired at RTU	6
2	EEP585	Simulation of Electrical Processes	To be acquired at RTU	7.5
3	EEP574	Commutated Converters	To be acquired at RTU	7.5
4	EEP572	The Control Systems of Power Electronics Equipment	To be acquired at RTU	7.5
5	EEP570	Elements of Automatics	To be acquired at RTU	13.5
6	EEP433	Automated Electrical Drive	To be acquired at RTU	4.5
7	EEP524	Design of Power Electronics Systems	To be acquired at RTU	4.5
8	EEP504	Microprocessors - based Automation Systems	Transferred to RTU	4.5
9	EEP582	Control Technique with Microprocessor Controllers	Transferred to RTU	4.5
10	EEP583	Industrial Frequency Converters and Inverters	To be acquired at RTU	3
11	IDA700	Basics of Labour Protection	Transferred to RTU	1.5
<b>B</b>	<b>Compulsory elective study courses</b>			<b>21</b>
<b>B1</b>	<b>Field-specific study course</b>			<b>15</b>
1	EEP408	Automated Electro technological Processes		3
2	EEP430	Industrial Programmable Control Systems	Transferred to RTU	3
3	EEP342	Application of Computers in Electrical Equipment Design		3
4	EEP319	Methods of Analysis and Calculation of Electronic Circuits		3
5	EEP458	Typical Electrical Drive		7.5
6	EEP581	Electro-Magnetic Compatibility in Industrial Electronic Equipment	To be acquired at RTU	3
7	EEP453	Industrial Electronic Equipment		6
8	EEP345	Unconventional Systems of Energy Conversion and Accumulation	Transferred to RTU	4.5
9	EES162	High Voltage Engineering	Transferred to RTU	4.5
<b>B2</b>	<b>Humanities and social sciences study courses</b>		Must be agreed a priori for each student in according to the individual plan	<b>3.0</b>
1	HSP483	Industrial Relations	Transferred to RTU	3.0
2	HSP488	Business Sociology		3.0
3	HSP430	Social Psychology		3.0
4	HSP446	Pedagogy		3.0

B1 - Completed at Partner Institution

B2 - Completed at Partner Institution

<b>B3</b>	<b>Economics and management study courses</b>		Must be agreed a priori for each student in according to the individual plan	<b>3.0</b>	B3 - Completed at Partner Institution
1	IUE217	Business Economics		3.0	
2	IUE308	Entrepreneurship Planning	Transferred to RTU	3.0	
3	IRO313	Organization of Production		3.0	
<b>C</b>	<b>Free elective study courses</b>			<b>6.0</b>	
1	SDD701	Innovative Product Development and Entrepreneurship	To be acquired at RTU	6.0	
<b>E</b>	<b>Final examination</b>			<b>30.0</b>	In cooperation with MUST (15 ECTS transferred from MUST)
2	EEI002	Master Thesis	Transferred to RTU	<b>30.0</b>	
3	EEL002	Master Thesis		<b>30.0</b>	
4	EEP002	Master Thesis		<b>30.0</b>	

Signature and stamp

Done in Riga

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Vice-Rector for Academic Affairs

Prof. **Uldis Sukovskis**

Date

Signature and stamp

Done in Ulaanbaatar

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Vice-President for Academic Affairs

Prof. **Khaltar Enkhjargal**

Date

### Annex 3: Study Plan for Students of MUST

#### Type 1

No	Code	Study Program	Section	(RTU) ECTS
<b>1<sup>st</sup> Semester: Courses at RTU</b>				<b>39.0</b>
1	EEP584	Theory of Electronic Converters of Electrical Energy	A	6
2	EEP585	Simulation of Electrical Processes	A	7.5
3	EEP572	The Control Systems of Power Electronics Equipment	A	7.5
4	EEP570	Elements of Automatics	A	13.5
5	EEP433	Automated Electrical Drive	A	4.5
<b>2<sup>nd</sup> Semester: Courses at RTU</b>				<b>18.0</b>
6	EEP574	Commutated Converters	A	7.5
7	EEP524	Design of Power Electronics Systems	A	4.5
8	EEP583	Industrial Frequency Converters and Inverters	A	3
9	EEP581	Electro-Magnetic Compatibility in Industrial Electronic Equipment	B1	3
<b>3<sup>rd</sup> Semester: Courses at MUST</b>				<b>19.5</b>
10	F.CN725	Basics of Occupational Safety	A	1.5
11	F.EE714	Microprocessors - based Automation Systems	A	4.5
12	F.EE715	Control Technique with Microprocessor Controllers	A	4.5
13	J.EE702	Semiconductor IC technology	B1	4.5
14	J.EE703	Digital Signal Processing	B1	4.5
<b>4<sup>th</sup> Semester: Courses at MUST/RTU</b>				<b>54.0</b>
15	U.SC705	Fundamental of Smart city	B1	3.0
16	U.SC782	Industrial Relations	B2	3.0
17	U.SC783	Entrepreneurship Planning and Smart cities	B3	3.0
18	SDD701	Innovative Product Development and Entrepreneurship	C	6.0
19	U.SC780	Internship: Smart city and ICT	E	9.0
20	EEI002/ J.EE795	Master Thesis	E	30.0
			<b>Total:</b>	<b>130.5 ECTS</b>

## Type 2

No	Code	Study Program	(RTU) ECTS	Grade	Date
<b>A Compulsory study courses</b>				<b>43.0/64.5</b>	
1	EEP584	Theory of Electronic Converters of Electrical Energy	at RTU	6	
2	EEP585	Simulation of Electrical Processes	at RTU	7.5	
3	EEP574	Commutated Converters	at RTU	7.5	
4	EEP572	The Control Systems of Power Electronics Equipment	at RTU	7.5	
5	EEP570	Elements of Automatics	at RTU	13.5	
6	EEP433	Automated Electrical Drive	at RTU	4.5	
7	EEP524	Design of Power Electronics Systems	at RTU	4.5	
8	EEP504	Microprocessors - based Automation Systems	at MUST	4.5	
9	EEP582	Control Technique with Microprocessor Controllers	at MUST	4.5	
10	EEP583	Industrial Frequency Converters and Inverters	at RTU	3	
11	IDA700	Basics of Labour Protection		1.5	
12	F.CN725	Basics of Occupational Safety	at MUST	1.5	
<b>B Compulsory elective study courses</b>				<b>14.0/21.0</b>	
<b>B1 Field-specific study course</b>				<b>10.0/15.0</b>	
1	EEP408	Automated Electro technological Processes		3	
2	EEP430	Industrial Programmable Control Systems		3	
3	EEP342	Application of Computers in Electrical Equipment Design		3	
4	EEP319	Methods of Analysis and Calculation of Electronic Circuits		3	
5	EEP458	Typical Electrical Drive		7.5	
6	EEP581	Electro-Magnetic Compatibility in Industrial Electronic Equipment	at RTU	3	
7	EEP453	Industrial Electronic Equipment		6	
8	EEP345	Unconventional Systems of Energy Conversion and Accumulation		4.5	
9	EES162	High Voltage Engineering		4.5	
10	J.EE702	Semiconductor IC technology	at MUST	4.5	
11	J.EE703	Digital Signal Processing	at MUST	4.5	
12	U.SC705	Fundamental of Smart city	at MUST	3.0	
<b>B2 Humanities and social sciences study courses</b>				<b>2.0/3.0</b>	
1	HSP483	Industrial Relations		3.0	
2	U.SC782	Industrial Relations	at MUST	3.0	
3	HSP488	Business Sociology		3.0	
4	HSP430	Social Psychology		3.0	
5	HSP446	Pedagogy		3.0	
<b>B3 Economics and management study courses</b>				<b>2.0/3.0</b>	

1	IUE217	Business Economics		3.0
2	IUE308	Entrepreneurship Planning		3.0
3	U.SC783	Entrepreneurship Planning and Smart cities	at MUST	3.0
4	IRO313	Organization of Production		3.0
C	<b>Free elective study courses</b>			<b>4.0/6.0</b>
1	SDD701	Innovative Product Development and Entrepreneurship	at RTU	6.0
E	<b>Final examination</b>			<b>26.0/39.0</b>
1	U.SC780	Internship: Smart city and ICT	at MUST	9.0
2	J.EE795	Master Thesis	at MUST	15.0
3	EEI002	Master Thesis	at RTU	15.0
4	EEL002	Master Thesis		30.0
5	EEP002	Master Thesis		30.0

Signature and stamp

Done in Riga

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Vice-Rector for Academic Affairs

Prof. **Uldis Sukovskis**

Date

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