



**RIGA TECHNICAL  
UNIVERSITY**



**KHARKIV NATIONAL  
AUTOMOBILE AND HIGHWAY  
UNIVERSITY**

## **COOPERATION AGREEMENT**

**concerning a**

### **Double Diploma Bachelor Programs**

**between**

**Riga Technical University**

*- hereinafter referred to as RTU*

*of Professional Bachelor Degree Program in Adaptronics*

**and**

**Kharkiv National Automobile and Highway University**

*- hereinafter referred to as KhNAHU*

*of Bachelor Degree Program in Electric Vehicles and Automotive Electronics*

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

*of Professional Bachelor Degree in Adaptronics / electrical engineer at RTU*

**and**

*of Bachelor Degree of Science in Electrical Engineering at KhNAHU*

## **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 KhNAHU to spend a period of their studies at RTU.

1.3. The degree courses in Riga and Kharkiv are well-established programs of equivalent quality and content, and with similar assessment procedures. The bachelor's degree programs, namely, the bachelor program "Adaptronics" at RTU is an accredited study program (Accreditation certificate No 2022/21-A). The bachelor program "Electric Vehicles and Automotive Electronics", from KhNAHU is approved by KhNAHU and licensed by the Ministry of Education and Science of Ukraine (Accreditation in 2024).

## **2. Terminology**

2.1. Double Diploma program (Program) in the context of this Agreement means two separate diplomas (one of KhNAHU and another of RTU), each of them being issued to students of KhNAHU 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 KhNAHU.

## **3. Cooperation Aspects**

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

3.1.1. The aim of the Program is to educate and train specialists in electric vehicles and automotive electronics in the field of the electrical engineering.

3.1.2. The Program will allow students of KhNAHU to obtain both KhNAHU and RTU bachelor degrees, and the Double Diploma option will be available only for the students enrolled in the selected degree program at KhNAHU.

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**

3.2.1. 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 considering the study and examination regulations of RTU and KhNAHU.

## **4. General Information**

### **4.1 Program Planning**

4.1.1. Studies will be implemented as regulated by each undersigning university. The Program comprises eight semesters for students of KhNAHU (160 Latvian credits = 240 ECTS) and an additional semester for the Bachelor's Thesis. See Annex 1: Program Structure and Annex 3: Study Plan for Students of KhNAHU).

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

- 1st- 4th, 6th, 8th Semesters: Courses at KhNAHU;
- 5th, 7th Semesters: Courses at RTU;
- 9th (additional) Semester: Bachelor Thesis at KhNAHU and RTU.

4.1.3. The stay of students at RTU is limited to three semesters: two semesters are devoted to academic courses and one semester is devoted to the development of a Bachelor Thesis at KhNAHU and RTU.

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

4.2.1. The Double Diploma Program will be available only for the students enrolled in the KhNAHU Bachelor Program "Electric Vehicles and Automotive Electronics". Students will have to meet 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 - KhNAHU. The host institution – RTU will make the final decision on the acceptance of each student.

4.2.4. The students from KhNAHU will have four semesters of their Bachelor Program "Electric Vehicles and Automotive Electronics" successfully completed at their home institution 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 KhNAHU 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 Computer Science, Information Technology and Energy will fund the studies of two first KhNAHU 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. KhNAHU 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. Bachelor Thesis**

6.2.1. Bachelor 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 Bachelor Degree of Professional bachelor degree in adaptronics / electrical engineer to KhNAHU students, who have successfully completed the Double Diploma Programme mobility period and have fulfilled all requirements of the respective RTU degree, including a defence of their Bachelor Thesis in front of a committee chaired by RTU (online if not possible otherwise) and with academic representation from KhNAHU.

## **7. Assessments**

### **7.1. Examinations**

7.1.1. Students KhNAHU 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.

7.1.2. 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 KhNAHU will be awarded:

- 8.1. the Diploma of Professional Bachelor Degree in Adaptronics / electrical engineer at RTU;
- 8.2. the Diploma of Bachelor Degree of Science in Electrical Engineering at KhNAHU.

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, Head of Study Program Adaptronics, e-mail [Oskars.Krievs@rtu.lv](mailto:Oskars.Krievs@rtu.lv).

10.5.2. KhNAHU: Prof Dr Andrii Hnatov, Head of Vehicle Electronics Department, e-mail: [kalifus@khadi.kharkov.ua](mailto:kalifus@khadi.kharkov.ua).

10.5.3. KhNAHU: Assistant prof. Oleksandr Dziubenko Deputy Head of Vehicle Electronics Department, e-mail: [dzyubenko.alan@gmail.com](mailto:dzyubenko.alan@gmail.com).

## **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 KhNAHU

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

Riga Technical University

Registration number: 90000068977

Educational institutions reg. No 3391000709

Legal address: 6A Kipsalas Street, Riga LV-1048

Kharkiv National Automobile and Highway University

Registration number: 02071168

Str. Yaroslava Mudrogo, 25, Kharkiv 61002

Signature

Done in Riga

Vice-Rector for Academic Affairs

Prof. Elina Gaile - Sarkane

Date 17.06.2024.

Signature

Done in Kharkiv

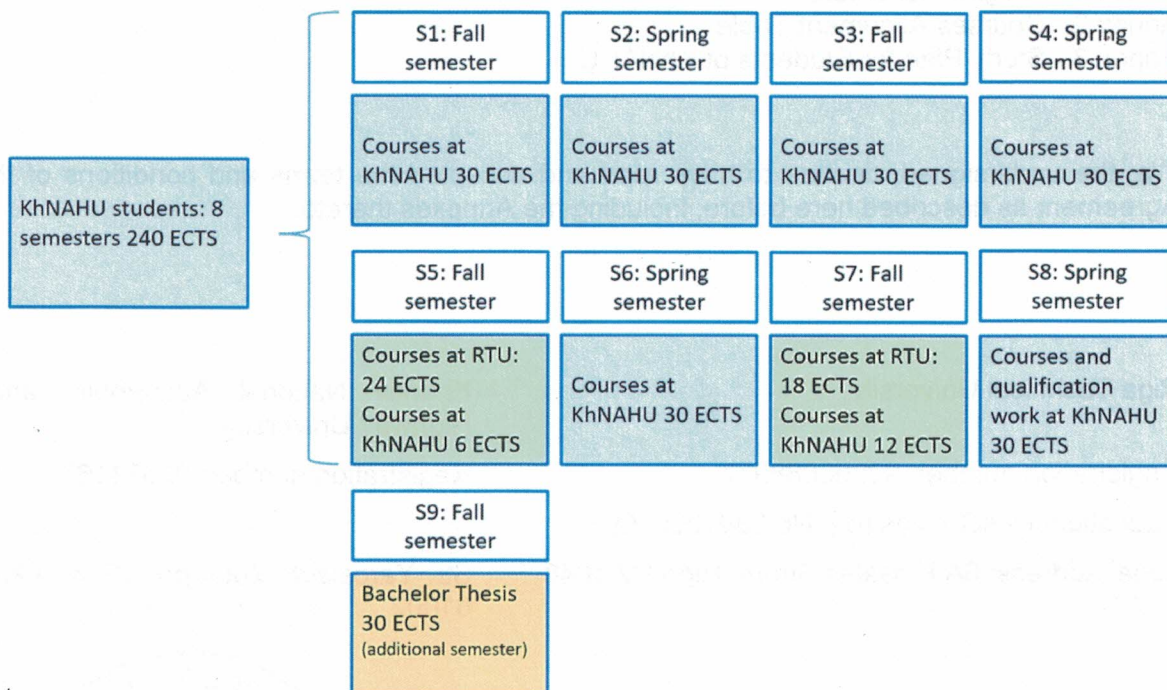
First Vice-Rector

Prof. Angelika Batrakova

Date 01.07.2024.



## Annex 1: Program Structure



Riga Technical University

Registration number: 90000068977

Educational institutions reg. No 3391000709

Legal address: 6A Kipsalas Street, Riga LV-1048

Signature  
Done in Riga

Vice-Rector for Academic Affairs  
Prof. Elina Gaile - Sarkane

Date 17.06.2024.

Kharkiv National Automobile and Highway University

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Done in Kharkiv

First Vice-Rector  
Prof. Angelika Batrakova

Date 01.07.2024



**Annex 2: Courses Alignment Table**

No	Code	RTU Study Program	KhNAHU subjects	(RTU) ECTS	
<b>A</b>		<b>Compulsory Study Courses</b>		<b>100.0</b>	
<b>A1</b>		<b>General Education Study Courses</b>		<b>15.0</b>	A1 - Completed at Partner Institution
1	VAS038	Environment and Climate Roadmap	Ecology	1	
2	IDA700	Basics of Labour Protection	Labour protection	1	
3	ICA301	Civil Defence	Labour protection	1	
4	SDD700	Innovative Product Development and Entrepreneurship	- Economic theory; - Marketing or another elective course	6	
5	BTG701	Fundamentals of Graphics Communication	Engineering and computer graphics	2	
6	EEI713	Introductory Course in Adaptronics	Computer information systems and technologies or another elective course	4	
<b>A2</b>		<b>Field-Specific Theoretical Basic and IT Study Courses</b>		<b>50.0</b>	A2 - Completed at Partner Institution
1	DMF101	Mathematics	- Higher mathematics; or - Mathematical methods in engineering and technology	9	
2	MFA101	Physics	- Physics; - Physics (special course)	6	
3	QVQ109	General Chemistry	Electrical materials	2	
4	MTM208	Robot Kinematics	Applied mechanics	3	
5	EEE223	Fundamentals of Electrical Engineering Theory	Theoretical foundations of electrical engineering	6	
6	EEE101	Electricity and Magnetism	- Theoretical foundations of electrical engineering; - Physics (special course) or another elective course	2	
7	EEI714	Elements of Adaptive Systems	On-board computing complexes of vehicles or another elective course	4	
8	EEP273	Basics of Regulation Theory	Theory of automatic control	2	
9	EEE215	Theory of Circuits	Theoretical foundations of electrical engineering	5	
10	EEI726	Electrical Measurement Basics	Basics of metrology and electrical measurements	3	
11	EEM732	Numerical Methods for Computerization of Tasks in Electrical Engineering	Diagnosis of mechatronic vehicle systems	2	
12	EES744	Legal Framework for Energy Construction and Electricity Industries	Transport law or another elective course	1	

13	EEI352	Programming languages	Basics of programming or another elective course	3	
14	EES225	Basic Signal Theory	Electronics and microcircuits	3	
<b>A3</b>		<b>Field-Specific Professional Study Courses</b>		<b>35.0</b>	
1	EEI705	Design of Adaptive Systems	To be acquired at RTU	4	7 Semester
2	EEI500	Adaptive Processing of the Signals	To be acquired at RTU	3	7 Semester
3	EEI729	Power Electronics	Power electronics	4	Transferred to RTU
4	EEP203	Digital Electronics (basic level)	Electronics and microcircuits	4	Transferred to RTU
5	EEI718	Industrial Sensors and Actuators	Fundamentals of computer-aided design systems for electrical systems and vehicle complexes or another elective course	4	Transferred to RTU
6	EEI710	Theory of Electrical Drive Systems	Theory of electric drive	5	Transferred to RTU
7	EEI348	Programming Technologies (study project)	Microprocessor devices (study project)	2	Transferred to RTU
8	EEP202	Control and Regulation of Electrical Drives	-Theory of electric drive; - Theory of electric drive (study project)	6	Transferred to RTU
9	BÜK702	Adaptive Systems in Biology	To be acquired at RTU	3	5 Semester
<b>B</b>		<b>Compulsory Elective Study Courses</b>		<b>34.0</b>	
<b>B1</b>		<b>Field-Specific Study Courses</b>		<b>26.0</b>	
<i>Adaptronics in transport information systems</i>					
1	EEI362	Internet of Things for Smart Electrical Technologies	To be acquired at RTU	3	7 Semester
2	EEI564	Computer Modelling of Intelligent Agents	To be acquired at RTU	6	5 Semester
3	EDE307	Optimization Algorithms	To be acquired at RTU	3	5 Semester
4	EDE410	Databases for Transportation Networks	Electrical systems and complexes of vehicles	2	Transferred to RTU
5	EDE222	WEB site design for transportation systems	To be acquired at RTU	2	7 Semester
6	EEI298	Web technology and web-programming in electrical transport	- Theory of electric vehicles or - WEB technologies or another elective course	2	Transferred to RTU
7	EEI720	Autonomous Robotic System (course project)	Theory of automatic control (course project)	2	Transferred to RTU
8	EEI388	Artificial neural networks technology basics in electrical transport	To be acquired at RTU	2	5 Semester

9	EEI487	Artificial immune systems and algorithms basics in electrical transport	To be acquired at RTU	2	5 Semester
10	EEI489	Embedded Systems of Electrical Transport (study project)	Simulation of electromechanical systems (study project)	2	Transferred to RTU
<b>B2</b>		<b>Humanities and Social Sciences Study Courses</b>		<b>4.0</b>	A1 - Completed at Partner Institution
1	IRO415	Organization of Production	- Theory and methods of scientific creativity; - Business communications; - Innovative entrepreneurship and start-up project management <b>or another elective course</b>	2	
2	HSP377	General Sociology	- Psychology; - Socio-political problems of modern society <b>or another elective course</b>	2	
3	HSP379	Political System of Latvia	- History and culture of Ukraine; - Socio-political problems of modern society <b>or another elective course</b>	2	
4	IET103	Economics	Economic theory <b>or another elective course</b>	2	
5	HPS120	Basics of Communication	- Philosophy; - Marketing <b>or another elective course</b>	2	
<b>B6</b>		<b>Languages</b>		<b>4.0</b>	A1 - Completed at Partner Institution
1	HVD101	The English Language	Foreign language (for professional purposes)	2	
2	HVD216	The English Language	Foreign language (special course)	2	
3	HVD108	The German Language	Foreign language (for professional purposes)	2	
4	HVD119	The French Language	Foreign language (special course)	2	
<b>C</b>		<b>Free Elective Study Courses</b>		<b>6.0</b>	
<b>D</b>		<b>Practical Placement</b>		<b>20.0</b>	
1	EEI728	Internship	- Educational practice - Technological practice - Production practice - Undergraduate practice	20.0	
<b>E</b>		<b>Final examination</b>		<b>20.0</b>	
1	EEI794	<b>Bachelor Thesis with Project</b>	<b>Performance of qualification work</b>	<b>20</b>	
					In cooperation with KhNAHU (12 ECTS)

					transferred from KhNAHU)
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Done in Kharkiv

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Prof. Angelika Batrakova

Date 01.07.2024



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

For Students of Kharkiv National Automobile and Highway University	
Course Group	ECTS Credits
Courses at KhNAHU	186
Courses at RTU	42
Performance of qualification work at KhNAHU and Bachelor Thesis with Project at RTU	12 30 (Bachelor Thesis at RTU)
<b>Total:</b>	<b>240</b> <b>30 (Bachelor Thesis at RTU)</b>

<b>SEMESTER 5 – Courses at RTU</b>		<b>24</b>
Adaptive Systems in Biology	BŪK702	4.5
Computer Modelling of Intelligent Agents	EEI564	9
Optimization Algorithms	EDE307	4.5
Artificial neural networks technology basics in electrical transport	EEI388	3
Artificial immune systems and algorithms basics in electrical transport	EEI487	3
<b>SEMESTER 7 – Courses at RTU</b>		<b>18</b>
Design of Adaptive Systems	EEI705	6
Adaptive Processing of the Signals	EEI500	4.5
Internet of Things for Smart Electrical Technologies	EEI362	4.5
WEB site design for transportation systems	EDE222	3
<b>SEMESTER 9 at KhNAHU and RTU</b>		<b>30</b>
Performance of qualification work at KhNAHU and Bachelor Thesis with Project at RTU	EEP002	12 (KhNAHU) + 18 (RTU)

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