



Road Transportation Systems Engineering Development in the Sub-Saharan Africa - Modern EU Master Programme & Capacity Building ERASMUS-EDU-2023-CBHE

# WP2. T2.2 Deeply analyses of study programs at Democratic Republic of Congo and Cameroon universities - survey analysis in bachelor's degree with regards to The European Union

19.11.2024



















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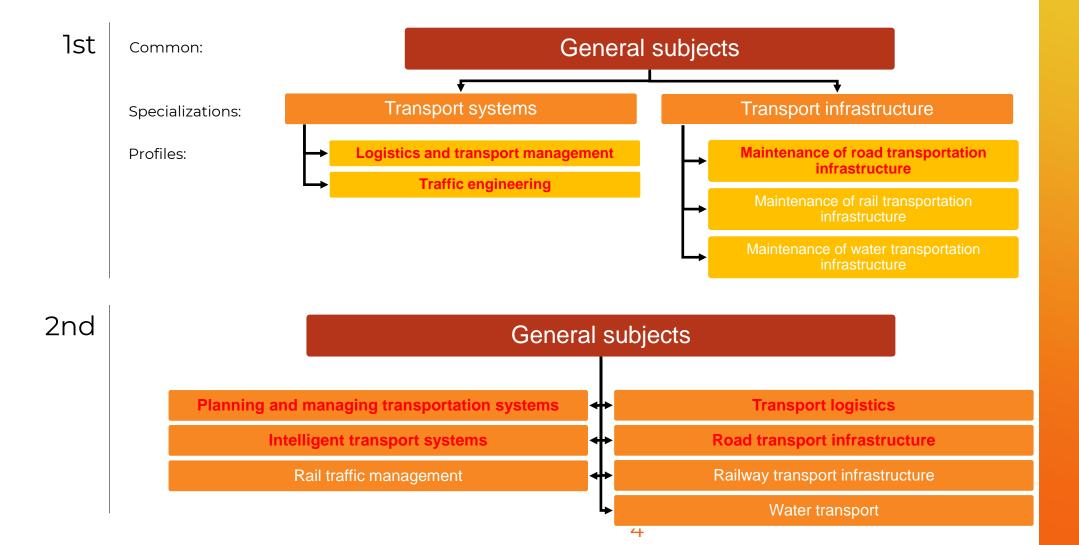


### Our teaching goals

- The main objective of the Transport program is to <u>develop skills for independently devising methods and processes for problemsolving using the engineering knowledge</u> acquired, deepened by additional practical and theoretical aspects.
- The aim is to teach students <u>practical elements</u> related to the work of a transport engineer.
- However, this practice should be grounded in theoretical fundamentals and highlight the potential of science for technology development and solving new challenges.

### The structure of study programs

Gdańsk University of Technology



# The hourly dimension of courses

		Engineering studies (1st)						Master's degree studies (2nd)									
		ECTS	Hours Number					Number of	ECTS	Hours					Number of		
		ECIS	Lectures_	Exercises_	Labor	Design	Sum	Share	semesters	ECIS	Lectures	Exercises_	Labor.	Design	Sum	Share	semesters
	General subjects	150	900	765	210	135	2010	78.4%		48	240	205	125	105	675	65.2%	
	Specialization	45	135	60	75	120	390	15.2%		45	120	30	120	90	360	34.8%	
	Profile	15	75	30	0	60	165	6.4%	7	0	0	0	0	0	C	0.0%	3
	Sum	210	1110	855	285	315	2565	100.0%		93	360	235	245	195	1035	100.0%	5
	Share	210	43.3%	33.3%	11.1%	12.3%	100.0%				34.8%	22.7%	23.7%	18.8%	100.0%		
	EC	ECTS	Hours					Number of	ECTS	Hours					Number of		
		ECIS	Lectures	Exercises_	Labor	Design_	Sum	Share	semesters	ECIS	Lectures	Exercises_	Labor	Design	Sum	Share	semesters
	General subjects	158	915	585	225	195	1920	74.4%		61	375	60	75	75	585	60.0%	
Warsaw	Specialization	52	330	60	135	135	660	25.6%	5	31	135	75	75	105	390	40.0%	<u></u>
	Profile	0	0	0	0	0	0	0.0%	7	0	0	0	0	0	C	0.0%	3
	Sum	210	1245	645	360	330	2580	100.0%		92	510	135	150	180	975	100.0%	
	Share		48.3%	25.0%	14.0%	12.8%	100.0%				52.3%	13.8%	15.4%	18.5%	100.0%		
	ECTS		Hours_					Number of	ECTS	HoursN					Number of		
	ECIS	Lectures_	Exercises_	Labor	Design	Sum	Share	semesters	LCIS	Lectures_	Exercises_	Labor	Design	Sum	Share	semesters_	
	General subjects	182	890	420	355	421	2086	86.9%		56	201	60	90	145	496	50.8%	
Cracow	Specialization	0	0	0	0	0	0	0.0%		34	180	30	105	45	360	36.9%	
	Profile	28	150	105	60	0	315	13.1%	7	0	60	0	15	45	120	12.3%	3
	Sum	210	1040	525	415	421	2401	100.0%		90	441	90	210	235	976	100.0%	
	Share		43.3%	21.9%	17.3%	17.5%	100.0%				45.2%	9.2%	21.5%	24.1%	100.0%		

# **Specialities**

based mainly on GUT

- Planning and managing transportation systems
- Intelligent transport systems,
  Traffic engineering
- Transport logistics
- Road transport infrastructure

# **Specialities**

based mainly on GUT

#### Planning and managing transportation systems

- Sustainable transport and mobility planning
- Transportation network planning
- Development strategy and transportation problem-solving
- Mobility management
- Safety management
- Forecasting the development of transportation systems and processes considering their dynamics, needs, and changes in transportation user behavior
- Modeling, simulating, designing, and operating elements of road, rail, and water transport infrastructure for passenger and freight transportation at micro, meso, and macro levels
- Evaluation of transportation solutions considering capacity, impact on safety and the environment, economic and financial efficiency, and feasibility.

# **Specialities**

based mainly on GUT

### Planning and managing transportation systems

### Main subjects:

Subject	ECTS	Lectures	Exercises	Labor.	Design	Sum
Transportation process modeling	4	30	0	0	30	60
Transportation systems planning	3	15	0	15	15	45
Mobility management	3	15	0	15	15	45
Environmental aspects in transportation development	3	15	0	15	15	45
Investment process management	2	15	15	0	0	30

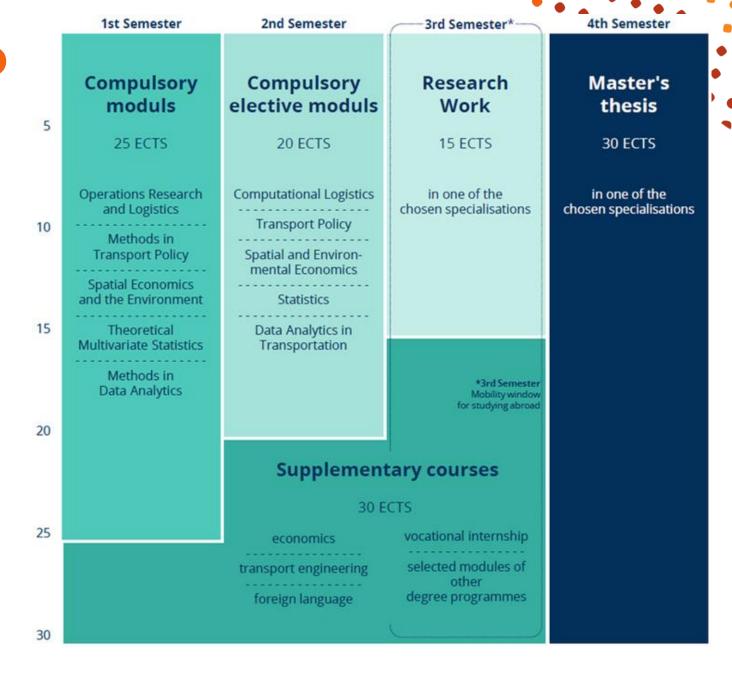
### **Germany – transport sudies**

- —In Germany, an Engineering Bachelor's degree requires 180 to 210 ECTS credits over 3 to 3.5 years
- —Master's programs demand 90 to 120 ECTS credits and take 1.5 to 2 years to complete, depending on prior education.
- —The total ECTS a student needs to take for both Bachelor's and master's program is 30

	ECTS	Year of Studies
Bachelor's degree	180-210	3 - 3.5
Diploma-Ingenieur	-	5
Master's degree	90-120	1.5 - 2

### Masters' - TUD

—4 semesters and 90 ECTS



# Université Officielle de Ruwenzori

- —UOR offers bachelor's and master's degree programmes in Civil Engineering (master's will start or started in 2024),
- —Bachelor's with the option of 1 prepolytechnics year. 180 credits ECTS (with pre 240).
- Master's Hydraulics and Hydraulic Constructions or Structures and Civil Engineering Works - 120 ECTS

# Universite Libre des Pays des Grands Lacs

- —ULPGL offers bachelor's and master's degree programmes in Civil Engineering (master's **will start or started** in 2024),
- —Bachelor's with the option of 1 prepolytechnics year. 180 credits ECTS (with pre 240).
- Master's Hydraulics and Hydraulic Constructions or Structures and Civil Engineering Works - 120 ECTS

# Université de l'Assomption au Congo

- —UAC offers bachelor's and master's degree programmes in Civil Engineering (master's will start or started in 2024),
- —Bachelor's with the option of 1 prepolytechnics year. 180 credits ECTS (with pre 240).
- Master's Structures and Civil Engineering
  Works 120 ECTS

# Institute of Technology of Industry, Management and Entrepreneurship

- —INTIME offers bachelor's degree programme in Civil Engineering
- —Bachelor's 3 years 240 ECTS.
- No master's studies Master's yet

# **University of Dschang**

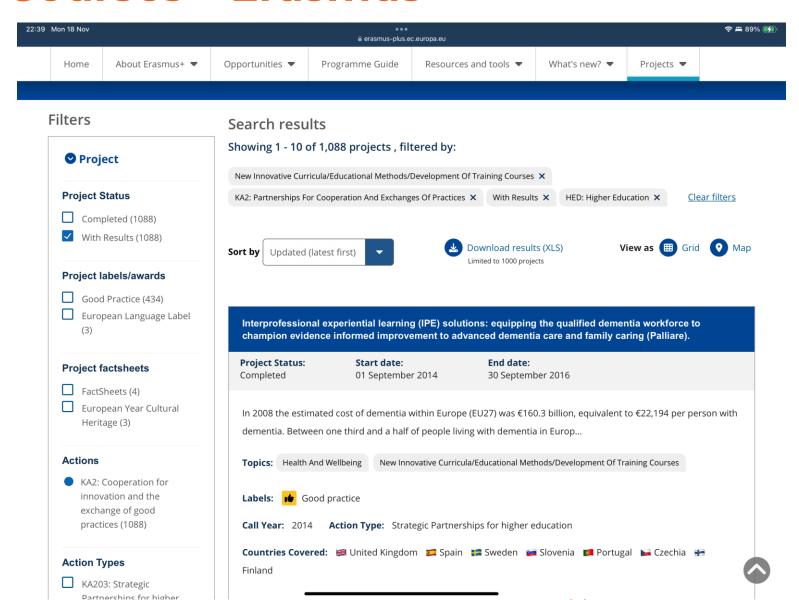
- —UDS offers bachelor's degree programme in Civil Engineering
- —Bachelor's 3 years 240 ECTS.
- No master's studies Master's yet

### **Summary**

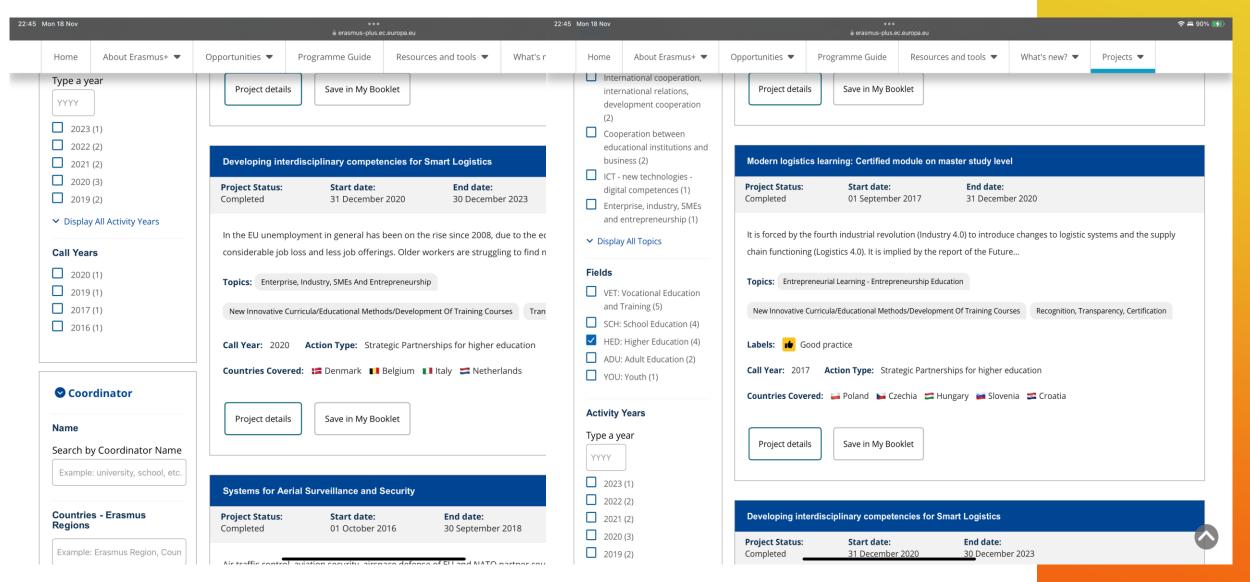
- —DR Congo AfroTrans project (the 12 new courses) will be a part of existing Master's program
- —Cameroon UDS AfroTrans project will be a part of new Master's program - we need accreditation
- —Cameroon INTIME AfroTrans project will be a part of new Master's program – we need accreditation
- —We should decide which courses will be a part of the new program

- We should prepare a minimum of 12 new courses
- —We can modify it according to your needs
- —We can add existing courses from EuroS@P, InfRo@d or another Erasmus+ project

#### Courses - Erasmus+



#### Courses - Erasmus+



### **Courses – Erasmus+**



- In 4 universities there are Fundamentals of Transport Systems and Processes course elements in other courses.
- Transport Research and Analysis is represented in UAC study programme.
- —Sustainable Transport Planning is not represented in any of the universities.

- In 4 universities there are Fundamentals of Transport Systems and Processes course elements in other courses.
- Transport Research and Analysis is represented in UAC study programme.
- —Sustainable Transport Planning is not represented in any of the universities.

- Road Infrastructure Safety Management is represented in INTIME study programme
- Logistics management is not represented in any of the universities.
- —In 4 universities there are Road construction and maintenance course elements in other courses.



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