



## EMERALD International Summer School on virtual e-Learning platform experience in Bio-Mechatronics - 28 August - 4 September 2023

h	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Monday	h
	28.08.2023	29.08.2023	30.08.2023	31.08.2023	01.09.2023	02.09.2023	04.09.2023	
10	Opening ceremony and EMERALD project presentation	VR programming and applications in bio- mechatronics	AR applications in bio- mechatronics	Mixed Reality applications in bio- mechatronics	Digital manufacturing and Digital testing	VR, AR and mixed reality applications made by the students for the EMERALD e-learning virtual platform	Finalizing progress report and preparing final presentation - working on smaller groups)	10
11	Participants' presentation and program guidelines of the summer school	VR Unity applications – laboratory on realizing programming in VR – part 1	AR Unity applications – laboratory on realizing programming in AR – part 1	Mixed reality experience – laboratory on realizing programming in Mixed Reality	Smart and Intelligent materials		Final test, final questionnaires and feedbacks fulfilled by the participants concerning the organized summer school + test corrections	11
12	Lunch & free time	Lunch & free time	Lunch & free time	Lunch & free time	Lunch & free time	Lunch & free time	Lunch & free time	12
13	Introduction to VR immersive technologies	VR Unity application – laboratory on realizing programming in VR – part 2	AR Unity application – laboratory on realizing programming in AR – part 2	EMERALD e-learning platform concept presentation and Kuula presentation (basic concepts)	Digital factory - lecture  Digital factory - seminar	Feedbacks provided regarding the content and functionality of the platform, sketching of potential scientific articles to be published by the EMERALD partners "in common"	Final student presentations, live demonstrations presenting and defining of common ideas of future diploma projects	13
14	Introduction to VR/AR and haptic technology integration in education	VR Unity application – laboratory on testing with VR googles	AR Blender application – laboratory of programming for realizing apps in AR	Kuula seminar – working on the EMERALD e-learning platform (virtual laboratories updating)	Presentation on behalf of companies, themes and feedbacks received from the companies	Finalizing progress report and preparing final presentation - working on smaller groups	Final conclusions, future perspectives of continuing the directions and using of resources conceived within the EMERALD project	14
15	Presentation of case studies and dividing into smaller groups	Conclusions, feedbacks and progress report	Conclusions, feedbacks and progress report	Conclusions, feedbacks and progress report	Conclusions, feedbacks and progress report	Conclusions, feedbacks and progress report	Closing and final awarding ceremony	15