

## **Summer School on Hybrid Neural Interfaces (HNI2024)**



Venue: Faculty of Electrical Engineering and Computer Science, Koroška cesta 46, 2000 Maribor (Alfa lecture room).

	Mon. July 8 <sup>th</sup>	Tue. July 9 <sup>th</sup>	Wed. July 10 <sup>th</sup>	Thu. July 11 <sup>th</sup>	Fri. July 12 <sup>th</sup>		
	HDEMG interfaces	EEG interfaces	Corticomuscular coupling	Intramuscular & US interfaces	Neural Interfaces in practice		
<b>Keynote 1 (Q&amp;A integrated)</b> 9:00 – 9:45 9:55 – 10:40	A. Holobar (SLO): Introduction D. Farina (UK): Movement augmentation	M.A. Mañanas (ES): Functional brain connectivity assessed by EEG	<b>A. Holobar (SLO):</b> MU identification pipelines: state-of-the-art and perspectives	S. Muceli (SE): Beyond the surface: multichannel intramuscular EMG	HybridNeuro Hub Day: Hub introduction & short presentations of invited stakeholders		
10:40 – 11:00	COFFEE BREAK	COFFEE BREAK	COFFEE BREAK	COFFEE BREAK	COFFEE BREAK		
Keynote 2 (Q&A integrated) 11:00 – 11:45 11:55 – 12:40	J. Škarabot (UK): MU behaviour in voluntary & elicited contractions	U. Marušič (SLO): Motor-cognitive interventions in gait and balance studies	A.P. Valdunciel (UK): Neural interfaces for managing movement disorders.	B. Sgambato (UK): Ultrasound neural interfaces	Round table: Challenges in Biomedical Development & Commercialization		
12:40 – 14:00	LUNCH	LUNCH	LUNCH	LUNCH	LUNCH		
Hands-on & practical advice from our students 14:00 – 15:00	M. Kramberger (SLO): How to improve the EMG acquisition: quality control for MU identification	N. Murks (SLO): From muscles to the brain: MU-based EEG filters	HNI2024: Summer Challenge: Science & Sport: Kinematic interfaces combined with surface EMG	University of Maribor & city tour	Summer school closing event		
Coffee & poster session 15:00 – 16:30	Student's project presentations with feedback from experts – Part 1	Student's project presentations with feedback from experts – Part 2					
	OPENING RECEPTION	Young researchers' activities.					











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Venue: raculty of Electrical Engineering and computer Science, Koroska cesta 40, 2000 Maribor (Ana lecture 100m).								
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QS & WP5 activities 14:00 – 15:00	UPC & IMPERIAL & UM: R&I + manuscripts	IMPERIAL & UM: R&I + ERC grant (D. Farina, A. Holobar)	UM & UPC & IMPERIAL & CHALMERS  International HybridNeuro Hub — Road Map  Joint R&D Strategy aligned with WP3 - Round table discussion	University of Maribor & city tour	Summer school closing event			
Coffee & poster session 15:00 – 16:30	Student's project presentations with feedback from experts – Part 1	Student's project presentations with feedback from experts – Part 2						
	OPENING RECEPTION	Qualified scientists' activities.						











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