

ICONIP 2024 Programme

MONDAY 2 DECEMBER

	Room: WG404	Room: WG126	Room: WG308	Room: WG802
	Tutorial	Tutorial	Tutorial	Tutorial
09.00 - 11.00	Multimodal AI and Spiking Neural Networks for Advanced Biomedical Applications	Potential AI applications in Forensic Brainwave Analysis (FBA)	Exploring User Experience in VR and Immersive Environments Using the 4E/MoBI Approach	
11.00 – 11.30	Morning Tea			
	Tutorial	Tutorial	Tutorial	Tutorial
11.30 - 13.30	Quantum Metaheuristics: Applications to Automatic Data Clustering	Preference-Based Combinatorial Optimization	An Integrated Toolbox for Creating Neuromorphic Edge Applications	
13.30 – 14.30	Lunch			
	Tutorial	Tutorial	Tutorial	Tutorial
14.30 - 16.30	Collaborative Learning and Optimization	Machine Learning for Streaming Data	Exploring Recent Advances in Deep Learning Architectures for Image Recognition	Tackling Bias in Large Language Models
18.30 – 20.30	ICONIP 2024 Welcome Function			AUT, WG Building

TUESDAY 3 DECEMBER

08.00 – 17.00	Registration Open			AUT, WG Building
08.30 – 09.00	Conference Opening			WG403 Lecture Theatre
09.00 – 09.45	Keynote 1: Advancing Human Potential Through AI <i>Fang Chen</i>			WG403 Lecture Theatre
09.45 – 10.30	Panel 1: Navigating High-Impact Research Publication: Strategies for Maximizing Reach and Influence			WG403 Lecture Theatre
10.30 – 11.00	Morning Tea Poster Session 1* *Presenters in Poster Session 1 – be by your poster during break times. Refer to page 16 for paper IDs.			WG201 Foyer Space
11.00 – 12.30	Parallel Session 1			
Session 1A Room: WG701	Session 1B Room: WG802	Session 1C Room: WG308	Session 1D Room: WG126	Session 1E Room: WG404
Machine Learning 1: 0953 2155 2336 3071 3131 3176	Causality & Explainable AI: 4166 9059 6966 8464 9349	WORKSHOP: AI Education* 1521 7455	WORKSHOP: The 17th International Workshop on Artificial Intelligence and Cybersecurity (AICS2024)* 5347 2656 8623 0609 5953 2286	WORKSHOP: g.tec From 10-20 to Ultra-high Density - Closed Loop Brain Computer Interface Advances with g.tec BCI Research and Clinical Systems

Session 1F ONLINE	Session 1G ONLINE	Session 1H ONLINE	Session 1I ONLINE	Session 1J ONLINE
Causality and Explainable AI 1 Online	Computational Intelligence Online	Control and Decision Theory Online	Machine Learning 1 Online	Neural Network Models 1 Online
0200 4750 5903 8667 9280 0635	0260 0590 3639 3670 7680 6886	3031 1907 2513 4578 4753 7794	0002 0948 1143 1480 1599 2886	9980 0656 2405 2554 4379 5091
Session 1K ONLINE	Session 1L ONLINE	Session 1M ONLINE	Session 1N ONLINE	
Time Series Analysis & Optimisation Online	Affective Computing and Brain Computer Interfaces Online	Bioinformatics Online	Biomedical Informatics 1 Online	
3349 3999 8861 4115 2950 7160	1488 1537 4843 7596 1502 2969	0009 2501 2592 1369 3588 4331	7636 0305 2501 0527 1397 1928	
12.30 – 13.30	Lunch Poster Session 1* *Presenters in Poster Session 1 – be by your poster during break times.			WG201 Foyer Space

13.30 – 15.00	Parallel Session 2			
Session 2A Room: WG701	Session 2B Room: WG802	Session 2C Room: WG308	Session 2D Room: WG126	Session 2E Room: WG404
Machine Learning 2: 3218 3384 5956 8476 8497 9239	Natural Language Processing 1 4508 6162 9775 9791 3423	WORKSHOP: AI Education*	WORKSHOP: The 17th International Workshop on Artificial Intelligence and Cybersecurity (AICS2024)*	WORKSHOP: g.tec From 10-20 to Ultra-high Density - Closed Loop Brain Computer Interface Advances with g.tec BCI Research and Clinical Systems
Session 2F ONLINE	Session 2G ONLINE	Session 2H ONLINE	Session 2I ONLINE	Session 2J ONLINE
Causality and Explainable AI 2 Online 1431 1561 6088 9294 1704 8917	Healthcare 1 Online 9956 1795 2482 3428 3870 8058	Human Activity Recognition 1 Online 5110 6386 6574 9846 1962 6641	Machine Learning 2 Online 3231 3351 3729 3758 4194 4277	Neural Network Models 2 Online 5111 5508 5657 8659 0443 0770
Session 2K ONLINE	Session 2L ONLINE	Session 2M ONLINE	Session 2N ONLINE	
Human Computer Interaction Online 2526 2883 0963	Recommender Systems 1 Online 0865 7050 8163	Big Data Analytics Online 0647 3781 0394	Biomedical Informatics 2 Online 2397 3002 3482	

2930 3748 5312	8439 0854 1035	1579 4133	4755 5492 6581	
15.00 – 15.30	Afternoon Tea Poster Session 1* *Presenters in Poster Session 1 – be by your poster during break times.			WG201 Foyer Space
15.00 – 19.00	APNNS Board of Governors Meeting			Room TBC
15.30 – 17.00	Parallel Session 3			
Session 3A Room: WG701	Session 3B Room: WG802	Session 3C Room: WG308	Session 3D Room: WG126	Session 3E Room: WG404
Machine Learning 3: 9701 9930 0871 3578 3954 4312	Brain Computer Interfaces: 7264 7863 1647 7763	Computational Intelligence: 0665 5291 8214 8821 9498 4219	Control Theory and Optimisation: 1547 2026 5462 9673 5656 6259	SS: Engineering Applications of Hybrid Artificial Intelligence Tools: 2527 4301 0939 9357
Session 3F ONLINE	Session 3G ONLINE	Session 3H ONLINE	Session 3I ONLINE	Session 3J ONLINE
Data Mining 1 Online 2931 9170 4160 1733 2320 3074	Healthcare 2 Online 1255 2661 2752 3377 4745 4823	Computer Vision 1 Online 0625 0709 0785 0800 0977 1224	Machine Learning 3 Online 4435 4623 4744 5129 5226 5308	Neural Network Models 3 Online 1316 2072 2734 3214 3904 4061

Session 3K ONLINE	Session 3L ONLINE	Session 3M ONLINE	Session 3N ONLINE	
Computer Vision 9 Online	Recommender Systems 2 Online	Computer Vision 17 Online	Biomedical Informatics 3 Online	
0710	2053	7421	0991	
0779	6794	7466	1713	
0826	7894	7614	2315	
0859	6585	7616	2529	
0869	6141	7689	5349	
0965	8869	7792	6776	

WEDNESDAY 4 DECEMBER

08.00 – 17.00	Registration Open			AUT, WG Building
09.00 – 09.45	Keynote 2: Evolving Multimodal Associative Memories in Brains and Machines: This is all we need <i>Nikola K. Kasabov</i>			WG403 Lecture Theatre
09.45 – 10.30	Panel 2: Transitioning from Academia to Industry: Bridging Research and Real-World Applications			WG403 Lecture Theatre
10.30 – 11.00	Morning Tea Poster Session 2* *Presenters in Poster Session 2 – be by your poster during break times. Refer to page 16 for paper IDs.			WG201 Foyer Space
11.00 – 12.30	Parallel Session 4			
Session 4A Room: WG701	Session 4B Room: WG802	Session 4C Room: WG308	Session 4D Room: WG126	Session 4E Room: WG404
Machine Learning 4: 5364	Neural Data Analysis: 7915	Healthcare 1: 1159	Human Centred Systems: 1528	WORKSHOP: Neural Models of Infants and Child Development

5464 6422 6734 7935 8981	0045 0694 5303 6413 6157	5929 4507 3996 4314 4986	3357 4730 6634 2890 2356	
Session 4F ONLINE	Session 4G ONLINE	Session 4H ONLINE	Session 4I ONLINE	Session 4J ONLINE
Data Mining 2 Online 3316 3825 4635 6927 8825 9431	Healthcare 3 Online 5061 5066 5272 6783 7192 8162	Computer Vision 2 Online 1234 1287 1343 1466 1941	Machine Learning 4 Online 5711 5792 6147 6726 7182 7913	Neural Network Models 4 Online 4738 5192 6978 8581 8874 8924
Session 4K ONLINE	Session 4L ONLINE	Session 4M ONLINE		
Computer Vision 10 Online 1093 1124 1296 1418 1443 1560	Information Retrieval Online 3630 4143 8315 0253 4109 6623	Computer Vision 18 Online 7904 7933 7958 8024 8031 8122		
12.30 – 13.30	Lunch Poster Session 2* *Presenters in Poster Session 2 – be by your poster during break times.			WG201 Foyer Space
13.30 – 15.00	Parallel Session 5			
Session 5A	Session 5B	Session 5C	Session 5D	Session 5E

Room: WG701	Room: WG802	Room: WG308	Room: WG126	Room: WG404
Machine Learning 5: 9185 9344 9845 9991 2255 9449	Data Mining 1: 3426 4139 4373 2543 2635 3480	Healthcare 2 5570 9168 0857 2970 5869 6796	Computer Vision 1: 0192 0931 1367 1491 3943	WORKSHOP: Neural Models of Infants and Child Development
Session 5F ONLINE	Session 5G ONLINE	Session 5H ONLINE	Session 5I ONLINE	Session 5J ONLINE
Data Mining 3 Online 9432 0387 0644 0820 1873 2796	Information Security 1 Online 0885 1717 9072 9314 0293 0463	Computer Vision 3 Online 2235 2688 2928 3412 3675 3776	Machine Learning 5 Online 8146 9080 9279 9562 4444 0079	Neural Network Models 5 Online 8933 9353 9425 9477 5664 4749
Session 5K ONLINE	Session 5L ONLINE	Session 5M ONLINE		
Computer Vision 11 Online 1638 1677 1865 2250 2313 2553	Language Processing and Models 1 Online 6090 2596 6250 0023 0514 0786	Computer Vision 19 Online 8164 8306 8338 8449 8570 8600		

15.00 – 15.30	Afternoon Tea Poster Session 2* *Presenters in Poster Session 2 – be by your poster during break times.				WG201 Foyer Space
15.30 – 17.00	Parallel Session 6				
Session 6A Room: WG701	Session 6B Room: WG802	Session 6C Room: WG308	Session 6D Room: WG126	Session 6E Room: WG404	
Information Retrieval	Data Mining 2	Information Security	Computer Vision 2	SS: Computationally Intelligent Techniques for Biological Data Analysis	
9983	3628	2573	4131	6392	
1893	5727	2637	6521	9877	
3126	6434	7804	6947	7344	
0333	3362	1919	7154	9450	
4478		6238	0411	9708	
5047		7988	1496	9162	
Session 6F ONLINE	Session 6G ONLINE	Session 6H ONLINE	Session 6I ONLINE	Session 6J ONLINE	
Data Mining 4 Online	Information Security 2 Online	Computer Vision 4 Online	Machine Learning 6 Online	Multimedia Information Processing 1 Online	
3638	1229	4073	0201	2117	
4177	1886	4246	0212	3303	
5225	3042	4389	1149	3847	
6058	3746	4434	1357	6403	
6235	3747	4589	1448	6699	
6863	5743	5709	1556	9458	
Session 6K ONLINE	Session 6L ONLINE	Session 6M ONLINE			
Computer Vision 12 Online	Language Processing and Models 2 Online	Computer Vision 20 Online			
2612	2571	8708			

2630 2879 3067 3268 6099	3339 3811 4025 4643 1036	8744 8774 8831 9022 9082		
18.00 – 22.00	Conference Gala Dinner/Annual General Meeting of APNNS			WG201 Foyer Space

THURSDAY 5 DECEMBER

08.00 – 17.00	Registration Open				AUT, WG Building
09.00 – 09.45	Keynote 3: Human Centred Cyber Security <i>Giovanni Russello</i>				WG403 Lecture Theatre
09.45 – 10.30	Panel 3: Navigating Responsible AI: Opportunities, Threats, and Ethical Boundaries				WG403 Lecture Theatre
10.30 – 11.00	Morning Tea Poster Session 3* *Presenters in Poster Session 3 – be by your poster during break times. Refer to page 16 for paper IDs.				WG201 Foyer Space
11.00 – 12.30	Parallel Session 7				
Session 7A Room: WG701	Session 7B Room: WG802	Session 7C Room: WG308	Session 7D Room: WG126	Session 7E Room: WG404	
WORKSHOP: Privacy Compliant Health Data As A Service For AI Development*	Natural Language Processing 2	SS: Computer Vision and Sensor Signal Processing for Enhancing Life Quality and Safety	Computer Vision 3	SS: Reliable, Robust and Secure Machine Learning Algorithms	

	0122 1238 1737 2143 5513	7802 0270 2216 5676 6880 3771	0412 0491 0570 1627 1672 1820	8348 1084 5212 6667 7303
Session 7F ONLINE	Session 7G ONLINE	Session 7H ONLINE	Session 7I ONLINE	Session 7J ONLINE
Data Mining 5 Online 7491 9124 9619 5602 7336 1631	Information Security 3 Online 5999 6012 7368 7508 7629 7675	Computer Vision 5 Online 6390 6397 6402 6743 6949 6971	Machine Learning 7 Online 2203 2781 2968 3720 3827 4480	Multimedia Information Processing 2 Online 3902 5383 7007 9027 9123 9455
Session 7K ONLINE	Session 7L ONLINE	Session 7M ONLINE		
Computer Vision 13 Online 3668 3778 4015 4071 4237 4503	Language Processing and Models 3 Online 5108 5147 6560 7655 7834 8489	Computer Vision 21 Online 9212 9483 9910 9953 9975		
12.30 – 13.30	Lunch Poster Session 3* *Presenters in Poster Session 3 – be by your poster during break times.			WG201 Foyer Space

13.30 – 15.00	Parallel Session 8			
Session 8A Room: WG701	Session 8B Room: WG802	Session 8C Room: WG308	Session 8D Room: WG126	Session 8E Room: WG404
WORKSHOP: Privacy Compliant Health Data As A Service For AI Development*	Natural Language Processing 3 9810 530 3918	Neural Network Models 1 5571 6875 8012 8605 9128	Computer Vision 4 2413 3505 4049 4954 5148	SS: AI in Environmental, Conservation and Geospatial Applications 1 5082 9780 1641 5826 0474 1146
Session 8F ONLINE	Session 8G ONLINE	Session 8H ONLINE	Session 8I ONLINE	Session 8J ONLINE
Language Processing and Models 7 Online 6321 6785 7173 7779 8252 8266	Robotics and Control Online 3122 7883 1872 8847 6236 0829	Computer Vision 6 Online 7041 7146 7649 8500 8604 8619	Machine Learning 8 Online 4853 5045 5629 6211 6501 6658	SS: AI in Environmental, Conservation and Geospatial Applications Online 1490 9054 4345 4383 9240
Session 8K ONLINE	Session 8L ONLINE	Session 8M ONLINE		
Computer Vision 14 Online 4525 4613 4844 4980 5324 5837	Language Processing and Models 4 Online 0248 0250 0273 1530 1751 1984	SS: Computational Cognitive Neuroscience Online 0942 1133 3244 9032 9758 9832		

15.00 – 15.30	Afternoon Tea Poster Session 3* *Presenters in Poster Session 3 – be by your poster during break times.				WG201 Foyer Space
15.30 – 17.00	Parallel Session 9				
Session 9A Room: WG701	Session 9B Room: WG802	Session 9C Room: WG308	Session 9D Room: WG126	Session 9E Room: WG404	
WORKSHOP: Privacy Compliant Health Data As A Service For AI Development*	Neurodynamics: 6150 0071 4688 7289 8228	Neural Network Models 2 0424 1916 4936 5078 8811	Computer Vision 5 5750 6020 6047 6454 6535	SS: AI in Environmental, Conservation and Geospatial Applications 2 2021 3206 6331 9058 9096	
Session 9F ONLINE	Session 9G ONLINE	Session 9H ONLINE	Session 9I ONLINE	Session 9J ONLINE	
Language Processing and Models 8 Online 8574 8622 8757 9327 9484 9526	SS: Computationally Intelligent Techniques for Biological Data Analysis 1 Online 5044 8624 9835 9850 7938 8032	Computer Vision 7 Online 8696 9003 9053 9086 9467 9699	Machine Learning 9 Online 6739 6813 7006 7162 7755 7839	SS: Computer Vision and Sensor Signal Processing for Enhancing Life Quality and Safety Online 6580 0777 2964 1661 4636 6618	
Session 9K ONLINE	Session 9L ONLINE	Session 9M ONLINE			
Computer Vision 15 Online 5850 5880	Language Processing and Models 5 Online 2089 2129	Applied AI 1 Online 7003 8953			

6104	2507	0492		
6255	2690	3471		
6364	3078	2222		
6426	3408	7355		

FRIDAY 6 DECEMBER

08.00 – 17.00	Registration Open			AUT, WG Building
09.00 – 09.45	Keynote 4: Interpretable Convolutional NNs and Graph CNNs: Role of Domain Knowledge <i>Danilo Mandic</i>			WG403 Lecture Theatre
09.45 – 10.30	Keynote 5: Intermittent Sensoring and Control for Energy, Communication, and Computation Savings: Recent Developments and Future Trends <i>Yongduan Song</i>			WG403 Lecture Theatre
10.30 – 11.00	Morning Tea			WG201 Foyer Space
11.00 – 12.30	Parallel Session 10			
Session 10A Room: WG701	Session 10B Room: WG802	Session10C Room: WG308	Session 10D Room: WG126	
Multimedia Information Processing 8586 8883 5787 8873 6801 7588	SS: Advancements in Optimization through Artificial Intelligence 3044 6771 8692 7100 8882	SS: Computational Cognitive Neuroscience 1241 1785 6483 2542 2851 3810	Computer Vision 6 7590 7628 8124 8921 9023 9637	

Session 10F ONLINE	Session 10G ONLINE	Session 10H ONLINE	Session 10I ONLINE	Session 10J ONLINE
Natural Language Processing 1 & SS Others Online 3989 2332 2525 4212 9026 9058	SS: Computationally Intelligent Techniques for Biological Data Analysis 2 Online 8457 4540 8351 8479 6200	Computer Vision 8 Online 9732 9753 9896 0503 0638 0705	Machine Learning 10 Online 7955 8728 9265 9360 9494 9774	Other 1 Online 1550 4811 2176 3086 8698 4012
Session 10K ONLINE	Session 10L ONLINE	Session 10M ONLINE	Session 10N ONLINE	Session 10P ONLINE
Computer Vision 9 Online 6665 6737 6773 6868 6910 7321	Language Processing and Models 6 Online 4231 4265 4641 4818 5729 5816	Applied AI 2 Online 1098 2714 6160 9589 9675 9848	Computer Vision 10 & Data Mining 6 Online 1822 3080 6377 7444 7200 3537	Other 2 Online 4685 9969 7837 0239 1547
12.30 – 13.00	Conference Closing Session			WG403 Lecture Theatre

Poster Sessions

Tuesday 3 December	Wednesday 4 December	Thursday 5 December
0648	7847	4376
5599	5060	6687
5535	6594	9227
6956	8858	4585
8832	7371	7828
2468	2020	6367
9827	2276	8379
356	1399	2113
2233	0993	7440
6497	3169	8812
6568	4965	2856
6677	4996	8638
7786	5371	4741
8424	7317	7793
6810	8684	8329
6570	9558	5016
0137	9571	2236
7656	9867	2686
3184	3141	9004
8477	3464	A018
2318	3510	A019
1526	5068	A020
3844	6688	A021
4012	9131	A022
A001	9322	A023
A002	A010	A024
A003	A011	A025
A004	A012	A026
A005	A013	A027
A006	A014	A028
A007	A015	A029
A008	A016	A030
A009	A017	A031