Programme Overview

Start	End	22-Oct	23-Oct	24-Oct
8:00	8:30	Toturials		
8:30	9:00		Technical Sessions	Technical Sessions
9:00	9:30			
9:30	10:00			
10:00	10:30		Break	Break
10:30	11:00		Technical Sessions	Technical Sessions
11:00	11:30			
11:30	12:00	Welcome Reception & Opening		
12:00	12:30		Lunch	Lunch
12:30	13:00		WiAPSIPA	
13:00	13:30			
13:30	14:00	Keynote 1	Keynote 2	Keynote 3
14:00	14:30			
14:30	15:00	Technical Sessions	Technical Sessions	Technical Sessions
15:00	15:30			
15:30	16:00			
16:00	16:30	Break	Break	Break
16:30	17:00	Technical Sessions	Technical Sessions	Founders Forum & Closing
17:00	17:30			
17:30	18:00			
18:00	18:30			
18:30	19:00			
19:00	19:30		Banquet	
19:30	20:00			
20:00	20:30			
20:30	21:00			
21:00	21:30			

Onsite registration opens at 10am on 22 Oct.

Best Paper Finalists are given 12-min presentation 3-min Q&A at Conference Awards Sessions I & II

All contributed full papers are given 5-min presentation and 30-min poster interaction (max A0 portrait) in the same room.

All late-breaking reports are given 5-min presentation only.

All authors are required to report to their respective sessions at least 15 mins ahead of the session to upload and test their slides.

Paper Allocations in Technical Sessions

Session	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12
Active Noise Control I	56	57	72	124	285	289	301	345	511	553	610	626
Active Noise Control II	63	87	134	265	305	310	330	340	458	490	497	513
Advanced Multimedia Applications	113	158	297	364	367	377	382	423	473	516		
Advanced Signal Processing and Machine Learning for Acoustic Scene Analysis and Signal Enhancement	51	184	186	201	234	293	418	439	442	474	501	507
Advanced Signal Processing and Resource Management for Sensing and Communication	144	167	169	219	220	341	400	416				
Advanced Topics in Audio Understanding of Sound Events, Scenes, and Beyond	58	103	117	157	211	258	275	328	389	398	459	461
Advanced Topics on Music Processing	177	283	298	319	337	349	356	424	441	453	496	517
Advances in Multimodal AI for Multimedia Applications	59	68	96	245	249	252	268	317	354	359	436	
Audio Processing	129	140	174	408	409	434	492	583				
Best Paper Finalists	105	402	69	284	36	355	530	586				
Biomedical Signal Processing and Systems I	26	148	173	214	240	241	336	407	413	415	447	227
Biomedical Signal Processing and Systems II	454	466	531	535	591	630	631	632				
Deep Learning: Algorithm, Implementations, and Applications	49	55	84	108	185	372	385	386	387	422	470	
Emerging Technologies and Applications of Image Processing and Computer Vision	54	143	171	196	269	332	445	518	548	568	572	
Generative AI Models for Vision-Based Applications	91	92	147	242	251	533	536	561	615			
Grand Challenge & Audio Processing	110	138	139	228	401	588	634	642	648	651	652	653
Interactive, Natural, Expressive and Robust Conversation System	42	60	73	78	102	112	152	199	217	321	483	
Machine Learning: Algorithms and Application I	22	47	216	229	274	294	313	361	576	578	609	
Machine Learning: Algorithms and Application II	83	207	232	309	343	352	370	412	460	557	644	
Machine Learning: Algorithms and Application III	35	239	291	311	312	314	411	457	493	520	559	
Machine Learning: Information and Medical Applications	24	260	278	300	303	324	431	558	580	594	595	
Multimedia Security & Forensics	104	135	215	348	379	410	464					
Multimodal AI	23	155	193	299	510	541	550	562				
Music and Singing	71	94	141	307	362	391	421	451	482	498	569	
Privacy and Security in Speech AI	86	133	194	200	417	495	515	538	547	608	623	
Recent Advances in Multimedia Enrichment, Security and Privacy	89	109	136	192	210	218	225	292	320	325	469	
Recent Advances in Multimodal Learning for Computer Vision	52	53	160	205	302	334	363	375	388	399	604	
Research Frontiers in Learned Visual Data Coding and Processing	64	106	161	204	335	383	465	468	532	539	621	
Scalable and Efficient Signal Processing for Multimodal AI Systems (ESPRESSO)	115	153	206	267	481	505	523	534	563	599	602	
Signal & Information Processing I	46	61	66	76	159	202	244	259	271	318	627	
Signal & Information Processing II	137	322	347	381	393	394	455	480				
Speaker Modeling Beyond Speaker Recognition	41	81	101	131	132	182	189	197	333	590		
Speech and Language Processing I	95	127	142	150	179	213	236	253	262	446	571	
Speech and Language Processing II	97	118	120	154	264	308	331	338	440	587	603	
Speech and Language Processing III	27	130	163	168	191	208	235	237	248	261	414	
Speech and Language Processing IV	29	116	449	478	502	503	514	551	560	577	641	
Speech Communication and Media Generation	256	272	344	384	427	428	450	452	472	487	616	
Speech Recognition and Understanding I	195	282	390	406	426	443	475	524	592	593		
Speech Recognition and Understanding II	151	226	238	280	296	342	392	405	542	556	575	
Speech Synthesis, Enhancement, and Recognition	17	48	98	149	243	304	491	500	554	600		
Tracing the Fake: Deepfake Detection, Attribution & Spoof-aware Speaker Verification Across Languages & Accents	126	187	188	203	212	254	276	327	508	509		
Wireless Communications & Networking	39	50	74	128	209	270	287	290	351	456		

22 October

Start	End	Island Ballroom	Lotus I	Lotus II	Hibiscus III	Peony I	Peony II
8:00	8:30	Exhibition Setup	Tutorial 1: Recent Advances in End-to-End Learned Image and Video Coding	Tutorial 2: Deep Speaker Modeling: Theories, Applications and Practice	Tutorial 3: From Detection to Direction: An Overview of Sound Event Localization and Detection	Tutorial 4: Adaptive Sensor Networks in Digital Health	Conference Subcomm Meeting
8:30	9:00						
9:00	9:30						
9:30	10:00						
10:00	10:30	Registration					
10:30	11:00						
11:00	11:30						
11:30	12:00	Welcome Reception & Opening Ceremony					
12:00	12:30						
12:30	13:00						
13:00	13:30						
13:30	14:00	Keynote 1 by Emanuël Habets					
14:00	14:30						
14:30	15:00	Perspective 1: Voice Privacy & Security	Advanced Signal Processing and Machine Learning for Acoustic Scene Analysis and Signal Enhancement	Interactive, Natural, Expressive and Robust Conversation System	Generative AI Models for Vision-Based Applications	Multimedia Security & Forensics	Wireless Communications & Networking
15:00	15:30						
15:30	16:00						
16:00	16:30	Break					
16:30	17:00	Perspective 2: Utilization of the Foundation Models and the Future	Tracing the Fake: Deepfake Detection, Attribution & Spoof-aware Speaker Verification Across Languages & Accents	Speaker Modeling Beyond Speaker Recognition	Three-Minute Thesis (3MT) Competition	OC Meeting	Advanced Multimedia Applications
17:00	17:30						
17:30	18:00						
18:00	18:30						
18:30	19:00						
19:00	19:30		APSIPA BoG Meeting				
19:30	20:00						
20:00	20:30						
20:30	21:00						
21:00	21:30						

23 October

Start	End	Island Ballroom	Lotus I	Lotus II	Hibiscus III	Peony I	Peony II
8:00	8:30	Registration					
8:30	9:00	Active Noise Cancellation Workshop Keynote	Advanced Topics in Audio Understanding of Sound Events, Scenes, and Beyond	Speech and Language Processing I	Research Frontiers in Learned Visual Data Coding and Processing	Multimodal AI	Biomedical Signal Processing and Systems I
9:00	9:30						
9:30	10:00						
10:00	10:30	Break					
10:30	11:00	Active Noise Cancellation Panel Discussion	Advanced Topics on Music Processing	Speech and Language Processing II	Emerging Technologies and Applications of Image Processing and Computer Vision	Biomedical Signal Processing and Systems II	Machine Learning: Algorithms and Application I
11:00	11:30						
11:30	12:00						
12:00	12:30	Lunch					
12:30	13:00	Women in APSIPA Forum	TC Meeting	TC Meeting	TC Meeting	TC Meeting	TC Meeting
13:00	13:30						
13:30	14:00	Keynote 2 by Jane Wang					
14:00	14:30						
14:30	15:00	Perspective 3: Neural Speech Assessment and Its Application	Active Noise Control I	Speech and Language Processing III	Machine Learning: Information and Medical Applications	Audio Processing	Signal & Information Processing I
15:00	15:30						
15:30	16:00						
16:00	16:30	Break					
16:30	17:00	Education Forum	Active Noise Control II	Speech and Language Processing IV	Recent Advances in Multimedia Enrichment, Security and Privacy	OC Meeting	Advances in Multimodal AI for Multimedia Applications
17:00	17:30						
17:30	18:00						
18:00	18:30						
18:30	19:00						
19:00	19:30	Banquet					
19:30	20:00						
20:00	20:30						
20:30	21:00						
21:00	21:30						

24 October

Start	End	Island Ballroom	Lotus I	Lotus II	Hibiscus III	Peony I	Peony II
8:00	8:30	Registration					
8:30	9:00	Sadaoki Furui Prize Papers and Conference Award Session I	Music and Singing	Speech Communication and Media Generation	Deep Learning: Algorithm, Implementations, and Applications	Advanced Signal Processing and Resource Management for Sensing and Communication	Machine Learning: Algorithms and Application II
9:00	9:30						
9:30	10:00						
10:00	10:30	Break					
10:30	11:00	Conference Award Session II	Grand Challenge & Audio Processing	Speech Recognition and Understanding I	Recent Advances in Multimodal Learning for Computer Vision	Signal & Information Processing II	Machine Learning: Algorithms and Application III
11:00	11:30						
11:30	12:00						
12:00	12:30	Lunch					
12:30	13:00		TC Meeting	TC Meeting	TC Meeting	TC Meeting	TC Meeting
13:00	13:30						
13:30	14:00	Keyntoe 3 by Xiao-Ping (Steven) Zhang					
14:00	14:30						
14:30	15:00	Perspective 4: Leveraging LLMs in Interdisciplinary Study of Speech and Language	Speech Synthesis, Enhancement, and Recognition	Speech Recognition and Understanding II	Privacy and Security in Speech AI	Late Breaking Reports	Scalable and Efficient Signal Processing for Multimodal AI Systems (ESPRESSO)
15:00	15:30						
15:30	16:00						
16:00	16:30	Break					
16:30	17:00	APSIPA General Assembly, Founders' Forum & Closing Ceremony					
17:00	17:30						
17:30	18:00						

Date	Start	End	Island Ballroom	Chair
	8:00	10:00		
	10:00	10:30	Set Up	
	10:30	11:30		
22	11:30	13:30	Welcome Reception & Opening Ceremony	Woon Seng Gan
Oct	13:30	14:30	Keynote 1 by Emanuël Habets	Shoji Makino
2025	14:30	16:00	Perspective 1: Voice Privacy & Security	Liping Chen
Wed	16:00	16:30	Break	
	16:30	18:00	Perspective 2: Utilization of the Foundation Models and the Future	Isao Echizen
	18:00	19:00		
	19:00	21:30		
	8:30	10:00	Active Noise Cancellation Workshop Keynote	Woon Seng Gan
	10:00	10:30	Break	
	10:30	12:00	Active Noise Cancellation Panel Discussion	Woon Seng Gan
23	12:00	13:30	Women in APSIPA Forum (12.20-13.30)	Bonnie Law
Oct	13:30	14:30	Keynote 2 by Jane Wang	Jay Kuo
2025	14:30	16:00	Perspective 3: Neural Speech Assessment and Its Application	Hsin-Min Wang
Thu	16:00	16:30	Break	
	16:30	18:00	Education Forum	Anthony Kuh
	18:00	19:00	Turnover for Banquet	
	19:00	21:30	Banquet	
	8:30	10:00	Sadaoki Furui Prize Papers and Conference Award Session I	Sang Hoon Lee
	10:00	10:30	Break	
24	10:30	12:00	Conference Award Session II	Yan Wu
Oct	12:00	13:30	Lunch	
2025	13:30	14:30	Keyntoe 3 by Xiao-Ping (Steven) Zhang	Haizhou Li
Fri	14:30	16:00	Perspective 4: Leveraging LLMs in Interdisciplinary Study of Speech and Language	Tan Lee
	16:00	16:30	Break	
	16:30	18:00	APSIPA General Assembly, Founders' Forum & Closing Ceremony	Woon Seng Gan

Date	Start	End	Lotus I	Chair	Co-Chair
	8:00	10:00			
	10:00	10:30	Tutorial 1: Recent Advances in End-to-End Learned Image and Video Coding		
	10:30	11:30			
22	11:30	13:30			
Oct	13:30	14:30			
2025	14:30	16:00	Advanced Signal Processing and Machine Learning for Acoustic Scene Analysis and Signal Enhancement	Shoji Makino	Kouei Yamaoka
Wed	16:00	16:30	Break		
	16:30	18:00	Tracing the Fake: Deepfake Detection, Attribution & Spoof-aware Speaker Verification Across Languages & Accents	Haizhou Li	Madhusudan Singh
	18:00	19:00	*Turnover for BoG Meeting*		
	19:00	21:30	BOG Meeting	Woon Seng Gan	
	8:30	10:00	Advanced Topics in Audio Understanding of Sound Events, Scenes, and Beyond	Nobutaka Ono	Keisuke Imoto
	10:00	10:30	Break		
	10:30	12:00	Advanced Topics on Music Processing	Tetsuro Kitahara	Eita Nakamura
23	12:00	13:30			
Oct	13:30	14:30			
2025	14:30	16:00	Active Noise Control I	Bai Mingsian	Shi Dong Yuan
Thu	16:00	16:30	Break		
	16:30	18:00	Active Noise Control II	Thushara Abhayapala	Jiancheng Tao
	18:00	19:00			
	19:00	21:30			
	8:30	10:00	Music and Singing	Soham Gangopadhyay	Tomohiko Nakamura
	10:00	10:30	Break		
24	10:30	12:00	Grand Challenge & Audio Processing	Ramesh R	Yang Xiao
Oct	12:00	13:30			
2025	13:30	14:30			
Fri	14:30	16:00	Speech Synthesis, Enhancement, and Recognition	Dyah A. M. G. Wisnu	Saisha Suresh Bore
	16:00	16:30	Break		
	16:30	18:00			

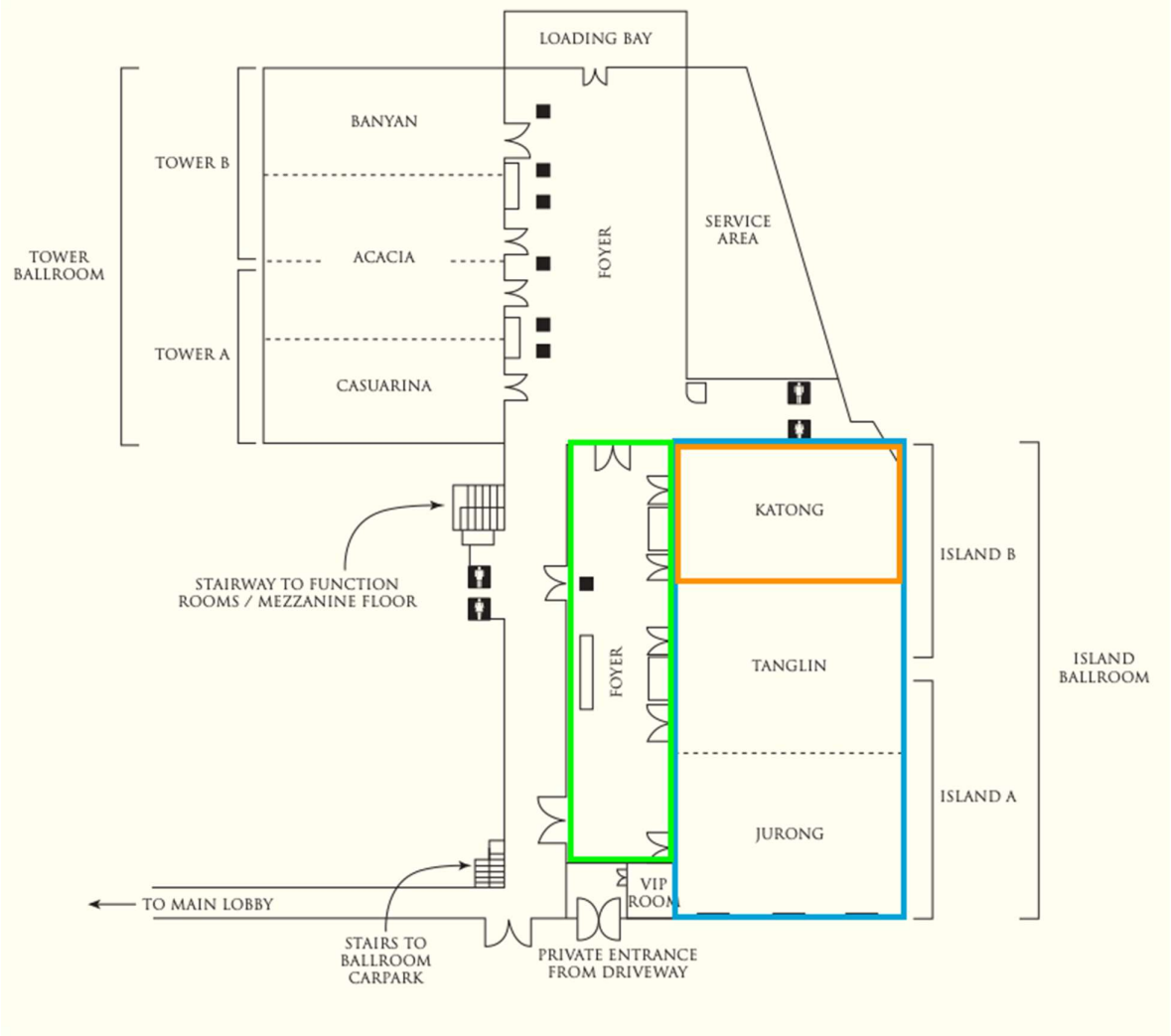
Date	Start	End	Lotus II	Chair	Co-Chair
	8:00	10:00			
	10:00	10:30	Tutorial 2: Deep Speaker Modeling: Theories, Applications and Practice		
	10:30	11:30			
22	11:30	13:30			
Oct	13:30	14:30			
2025	14:30	16:00	Interactive, Natural, Expressive and Robust Conversation System	Tetsuji Ogawa	Tzu-Quan Lin
Wed	16:00	16:30	Break		
	16:30	18:00	Speaker Modeling Beyond Speaker Recognition	Shuai Wang	Yanmin Qian
	18:00	19:00	*Turnover for BoG Meeting*		
	19:00	21:30	BOG Meeting	Woon Seng Gan	
	8:30	10:00	Speech and Language Processing I	Yang Ai	Eliathamby Ambikairajah
	10:00	10:30	Break		
	10:30	12:00	Speech and Language Processing II	Ashish Panda	Bagus Tris Atmaja
23	12:00	13:30			
Oct	13:30	14:30			
2025	14:30	16:00	Speech and Language Processing III	Liping Chen	Ivan Kukanov
Thu	16:00	16:30	Break		
	16:30	18:00	Speech and Language Processing IV	Xin Wang	Madhusudan Singh
	18:00	19:00			
	19:00	21:30			
	8:30	10:00	Speech Communication and Media Generation	Wen-Chin Huang	Kengo Ohta
	10:00	10:30	Break		
24	10:30	12:00	Speech Recognition and Understanding I	Sayaka Shiota	Virender kadyan
Oct	12:00	13:30			
2025	13:30	14:30			
Fri	14:30	16:00	Speech Recognition and Understanding II	Yu Tsao	Huijing Zhan
	16:00	16:30	Break		
	16:30	18:00			

Date	Start	End	Hibiscus III	Chair	Co-Chair
	8:00	10:00			
	10:00	10:30	Tutorial 3: From Detection to Direction: An Overview of Sound Event Localization and Detection		
	10:30	11:30			
22	11:30	13:30			
Oct	13:30	14:30			
2025	14:30	16:00	Generative AI Models for Vision-Based Applications	Po-Chyi Su	Hsiao-Chi Li
Wed	16:00	16:30	Break		
	16:30	18:00	Three-Minute Thesis (3MT) Competition	Woon Seng Gan	
	18:00	19:00			
	19:00	21:30			
	8:30	10:00	Research Frontiers in Learned Visual Data Coding and Processing	Wen-Hsiao Peng	Xiem Hoang
	10:00	10:30	Break		
	10:30	12:00	Emerging Technologies and Applications of Image Processing and Computer Vision	Chang-Su Kim	Keunsoo Ko
23	12:00	13:30			
Oct	13:30	14:30			
2025	14:30	16:00	Machine Learning: Information and Medical Applications	Kazushi Ikeda	Ting Dang
Thu	16:00	16:30	Break		
	16:30	18:00	Recent Advances in Multimedia Enrichment, Security and Privacy	Masaki Kawamura	Shoko Imaizumi
	18:00	19:00			
	19:00	21:30			
	8:30	10:00	Deep Learning: Algorithm, Implementations, and Applications	Shoji Makino	Shogo MURAMATSU
	10:00	10:30	Break		
24	10:30	12:00	Recent Advances in Multimodal Learning for Computer Vision	Akshita Abrol	Stephen Karungaru
Oct	12:00	13:30			
2025	13:30	14:30			
Fri	14:30	16:00	Privacy and Security in Speech AI	Tomoki Toda	Yiming Wang
	16:00	16:30	Break		
	16:30	18:00			

Date	Start	End	Peony I	Chair	Co-Chair
	8:00	10:00			
	10:00	10:30	Tutorial 4: Adaptive Sensor Networks in Digital Health		
	10:30	11:30			
22	11:30	13:30			
Oct	13:30	14:30			
2025	14:30	16:00	Multimedia Security & Forensics	Hong Huy Nguyen	Mehmet Sinan YILDIRIM
Wed	16:00	16:30	Break		
	16:30	18:00	OC Meeting		
	18:00	19:00			
	19:00	21:30			
	8:30	10:00	Multimodal AI	Chi-Chun (Jeremy) Lee	Keunsoo Ko
	10:00	10:30	Break		
	10:30	12:00	Biomedical Signal Processing and Systems II	Ingon Chanpornpakdi	Kazushi Ikeda
23	12:00	13:30			
Oct	13:30	14:30			
2025	14:30	16:00	Audio Processing	Jihui (Aimee) Zhang	Huawei Zhang
Thu	16:00	16:30	Break		
	16:30	18:00	OC Meeting		
	18:00	19:00			
	19:00	21:30			
	8:30	10:00	Advanced Signal Processing and Resource Management for Sensing and Communication	Koichi Adachi	Kazunori Hayashi
	10:00	10:30	Break		
24	10:30	12:00	Signal & Information Processing II	Candy Olivia Mawalim	Candy Olivia Mawalim
Oct	12:00	13:30			
2025	13:30	14:30			
Fri	14:30	16:00	Late Breaking Reports (638 & 654-6667)	Ying-Ren Chien	Jihui Aimee Zhang
	16:00	16:30	Break		
	16:30	18:00			

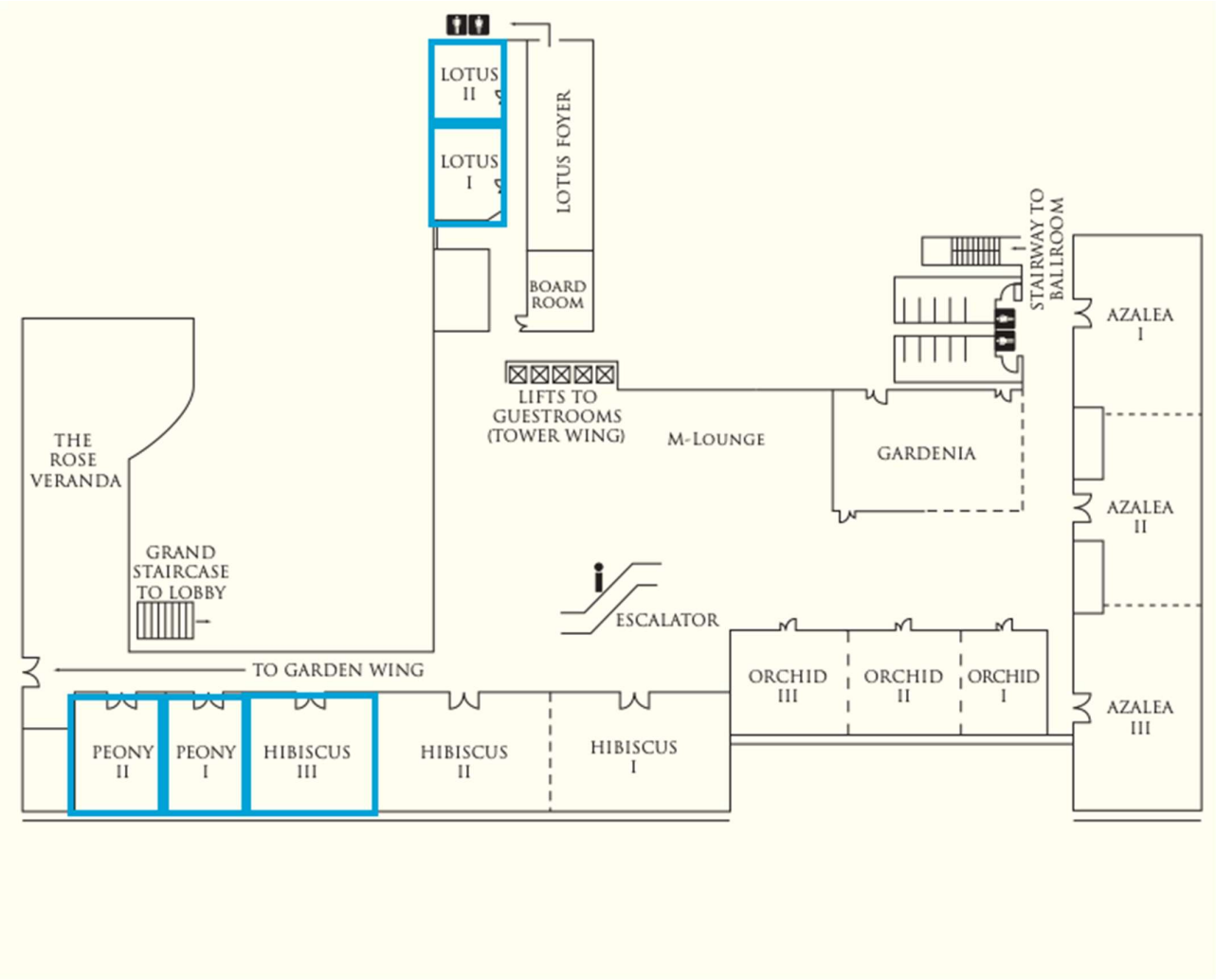
Date	Start	End	Peony II	Chair	Co-Chair
	8:00	10:00			
	10:00	10:30	Conference Subcomm Meeting		
	10:30	11:30			
22	11:30	13:30			
Oct	13:30	14:30			
2025	14:30	16:00	Wireless Communications & Networking	Kouji Hirata	Shu-Yu Lin
Wed	16:00	16:30	Break		
	16:30	18:00	Advanced Multimedia Applications	Zhi Hu	Dayan Perera
	18:00	19:00			
	19:00	21:30			
	8:30	10:00	Biomedical Signal Processing and Systems I	Jetsada Arnin	Wen Zhang
	10:00	10:30	Break		
	10:30	12:00	Machine Learning: Algorithms and Application I	Jia-Ching Wang	Guo-Shiang Lin
23	12:00	13:30			
Oct	13:30	14:30			
2025	14:30	16:00	Signal & Information Processing I	Dipanita Chakraborty	S. Nimishan
Thu	16:00	16:30	Break		
	16:30	18:00	Advances in Multimodal AI for Multimedia Applications	Phat Nguyen	Chen-Kuo Chiang
	18:00	19:00			
	19:00	21:30			
	8:30	10:00	Machine Learning: Algorithms and Application II	Junya Hara	Yuichi Tanaka
	10:00	10:30	Break		
24	10:30	12:00	Machine Learning: Algorithms and Application III	Koichi Shinoda	Chih-Yi Chiu
Oct	12:00	13:30			
2025	13:30	14:30			
Fri	14:30	16:00	Scalable and Efficient Signal Processing for Multimodal AI Systems (ESPRESSO)	Yang Xiao	Jisheng Bai
	16:00	16:30	Break		
	16:30	18:00			

Floorplan for Island Ballroom



Registration: Foyer of Island Ballroom
Plenary Sessions: Island Ballroom
Banquet: Island Ballroom
Exhibition: Katong

Floorplan for Mezzanine Floor



Parallel Sessions:

- **Lotus I**
- **Lotus II**
- **Hibiscus III**
- **Peony I**
- **Peony II**

2025 Asia Pacific Signal and Information Processing Association Annual Summit and Conference (APSIPA ASC)

22-24 October 2025, Singapore

Technical Program

Day 1 | Day 2 | Day 3

Day 1: Wednesday, 22 Oct 2025 - Overview	
08:00-10:00	D1-0800_IB **Exhibition Setup** Location: Island Ballroom
08:00-11:30	D1-0800_L1 **Tutorial 1: Recent Advances in End-to-End Learned Image and Video Coding** Location: Lotus I
08:00-11:30	D1-0800_L2 **Tutorial 2: Deep Speaker Modeling: Theories, Applications and Practice** Location: Lotus II
08:00-11:30	D1-0800_H3 **Tutorial 3: From Detection to Direction: An Overview of Sound Event Localization and Detection** Location: Hibiscus III
08:00-11:30	D1-0800_P1 **Tutorial 4: Adaptive Sensor Networks in Digital Health** Location: Peony I
10:00-11:30	D1-1000_IB **Registration** Location: Island Ballroom
11:30-13:30	D1-1130_IB **Welcome Reception & Opening Ceremony** Location: Island Ballroom
13:30-14:30	D1-1330_IB **Keynote 1 by Emanuël Habets** Location: Island Ballroom
14:30-16:00	D1-1430_IB **Perspective 1: Voice Privacy & Security** Location: Island Ballroom
14:30-16:00	D1-1430_L1 **Advanced Signal Processing and Machine Learning for Acoustic Scene Analysis and Signal Enhancement** Location: Lotus I
14:30-16:00	D1-1430_L2 **Interactive, Natural, Expressive and Robust Conversation System** Location: Lotus II

14:30-16:00	D1-1430_H3 **Generative AI Models for Vision-Based Applications** Location: Hibiscus III
14:30-16:00	D1-1430_P1 **Multimedia Security & Forensics** Location: Peony I
14:30-16:00	D1-1430_P2 **Wireless Communications & Networking** Location: Peony II
16:00-16:30	**Break**
16:30-18:00	D1-1630_IB **Perspective 2: Utilization of the Foundation Models and the Future** Location: Island Ballroom
16:30-18:00	D1-1630_L1 **Tracing the Fake: Deepfake Detection, Attribution & Spoof-aware Speaker Verification Across Languages & Accents** Location: Lotus I
16:30-18:00	D1-1630_L2 **Speaker Modeling Beyond Speaker Recognition** Location: Lotus II
16:30-18:00	D1-1630_H3 **Three-Minute Thesis (3MT) Competition** Location: Hibiscus III
16:30-18:00	D1-1630_P2 **Advanced Multimedia Applications** Location: Peony II

Day 1: Wednesday, 22 Oct 2025 - With Papers	
08:00-10:00	D1-0800_IB **Exhibition Setup** Location: Island Ballroom
08:00-11:30	D1-0800_L1 **Tutorial 1: Recent Advances in End-to-End Learned Image and Video Coding** Location: Lotus I
08:00-11:30	D1-0800_L2 **Tutorial 2: Deep Speaker Modeling: Theories, Applications and Practice** Location: Lotus II
08:00-11:30	D1-0800_H3 **Tutorial 3: From Detection to Direction: An Overview of Sound Event Localization and Detection** Location: Hibiscus III
08:00-11:30	D1-0800_P1 **Tutorial 4: Adaptive Sensor Networks in Digital Health** Location: Peony I
10:00-11:30	D1-1000_IB **Registration** Location: Island Ballroom
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2025 Asia Pacific Signal and Information Processing Association Annual Summit and Conference (APSIPA ASC)

22-24 October 2025, Singapore

Technical Program

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08:30-10:00	**D2-0830_L1 Advanced Topics in Audio Understanding of Sound Events, Scenes, and Beyond** Location: Lotus I **D2-0830_L1.1** 58 Evaluation of auditory and tactile perception for augmented sound-image enhancement using pre-virtual-leading hypersonic signals *Ryota Imanaka, Yuting Geng, Masato Nakayama, Takanobu Nishiura* **D2-0830_L1.2** 103 Improvement in Variance Estimation in Variable-Step-Size Shared-Error NLMS Algorithm for Acoustic Echo and Noise Canceller *Kenta Iwai* **D2-0830_L1.3** 117 Hierarchical Sparse Sound Field Reconstruction with Spherical and Linear Microphone Arrays *Shunxi Xu, Craig T. Jin* **D2-0830_L1.4** 157 Robust Superdirective Beamforming Using a Uniform Circular Array with Directional Microphones *Weilong Huang, Longfei Felix Yan, Emanuël A.P. Habets* **D2-0830_L1.5** 211 Towards Robust Stereo 3-D SELD: A Study of Perceptual Features and Data Augmentation *Jun Wei Yeow, Ee-Leng Tan, Santi Peksi, Woon-Seng Gan, Huang Qirui* **D2-0830_L1.6** 258 Pre-training Autoencoder for Acoustic Event Classification via Blinky *Xiaoyang Liu, Yuma Kinoshita* **D2-0830_L1.7** 275 Sound source enhancement using power spectral density estimation in beamspace for a dual unmanned aerial vehicle system *Mingxue Song, Jin Xuan Teh, Yusuke Hioka, Benjamin Yen, Hiroshi Saruwatari* **D2-0830_L1.8** 328 Three-Dimensional Gradient-Based Tracking of Multiple Sound Sources *Shaoheng Xu, Wei-Ting Lai, Yile (Angela) Zhang, Jihui (Aimee) Zhang, Amy Bastine, Prasanga Samarasinghe, Thushara Abhayapala* **D2-0830_L1.9** 389 Retrieval-Augmented Difference Captioning to Explain Unsupervised Anomalous Sound Detection *Ryoya Ogura, Tomoya Nishida, Yohei Kawaguchi* **D2-0830_L1.10** 398 An Evaluation of Supervised Virtual Microphone Estimators in Reverberant Sound Fields *Kimihiro Hattori, Wen-Chin Huang, Kazuya Takeda, Tomoki Toda* **D2-0830_L1.11** 459 Human-CLAP: Human-perception-based contrastive language–audio pretraining *Taisei Takano, Yuki Okamoto, Yusuke Kanamori, Yuki Saito, Ryotaro Nagase, Hiroshi Saruwatari* **D2-0830_L1.12** 461 Training Acoustic Scene Classification Models Robust to Asynchrony in Distributed Microphone Arrays *Takao Kawamura, Nobutaka Ono*

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08:30-10:00	**D2-0830_H3 Research Frontiers in Learned Visual Data Coding and Processing** Location: Hibiscus III **D2-0830_H3.1** 64 Neural Implicit Representations for Object-centric Machine Vision Tasks *Yeoneui Kim, Je-Won Kang* **D2-0830_H3.2** 106 GoP-to-Frame Encoder Adaptation for Learned Video Compression *Xiaohan Pan, Runsen Feng, Henan Wang, Yixin Gao, Zhibo Chen* **D2-0830_H3.3** 161 Efficient Adversarial Attack and Training on Learned Image Compression *Jun Kurihara, Heming Sun* **D2-0830_H3.4** 204 Accelerating VVC Inter-Frame Coding: A Lightweight CNN for Fast QTMT Partitioning *Jui-Chen Luo, Jiann-Jone Chen, Tien-Ying Kuo, Yi-Fan Wu, Zhang Kai-Jie* **D2-0830_H3.5** 335 Multimodal Speech Analysis for Early Detection of Mild Cognitive Impairment: A Scalable Approach *Muhammad Bilal, Waleed Abdulla, Gary Cheung, Lynette Tippett, Reza Shahamiri* **D2-0830_H3.6** 383 Boundary-Enhanced Attention Network for Breast Mass Segmentation *Rong Chen, Karungaru Stephen, Kenji Terada, Linhuang Wang* **D2-0830_H3.7** 465 Scale and Rotation Estimation of Similarity-Transformed Images via Cross-Correlation Maximization Based on Auxiliary Function Method *Shinji Yamashita, Yuma Kinoshita, Hitoshi Kiya* **D2-0830_H3.8** 468 Strong Eye Closure Detection in Children with Profound Intellectual and Multiple Disabilities Using Robust Temporal Difference Features *Kaito Kosaki, Teppei Nakano, Mari Wakabayashi, Tomomi Sato, Tetsuji Ogawa* **D2-0830_H3.9** 532 A Rate-Quality Model for Learned Video Coding *Sang NguyenQuang, Cheng-Wei Chen, Xiem HoangVan, Wen-Hsiao Peng* **D2-0830_H3.10** 539 Low-Light RAW Image Enhancement with Additive Parameterization and State Space Model *Shugo Yamashita, Masaaki Ikehara* **D2-0830_H3.11** 621 Synthesizing and Restoring Weather-corrupted Images with Conditional Diffusion Models *Youngho Go, Sung-Hak Lee*
08:30-10:00	**D2-0830_P1 Multimodal AI** Location: Peony I **D2-0830_P1.1** 23 VoxRep: Enhancing 3D Spatial Understanding in 2D Vision-Language Models via Voxel Representation *Alan (Gia Tuan Dao) Dao, Norapat Buppodom* **D2-0830_P1.2** 155 Active Multi-Object Tracking for 3D Reconstruction with Hierarchical Reinforcement Learning *Heng Li, Cheng Cai* **D2-0830_P1.3** 193 Multimodal Sentiment Analysis with Missing Modality: A Knowledge-Transfer Approach *Weide Liu, Huijing Zhan* **D2-0830_P1.4** 299 Modeling Spatiotemporal Multimodal Data With Kernel Graph Regression Models And Copulas *Jeffrey Wu, Gareth Peters* **D2-0830_P1.5** 510 CopeCap: A lightweight image captioning model with collaborative prompt learning *Xiwei Yu, Guoshun He* **D2-0830_P1.6** 541 Lyric-Aware Karaoke Background Video Selection Using Large Language Models and Moment Retrieval *Tomoki Ariga, Jun Taniguchi, Yosuke Higuchi, Sayaka Toma, Kunihiro Abe, Rie Shigyo, Tetsuji Ogawa* **D2-0830_P1.7** 550 Audio-Visual Speech Recognition Based on Cross-Lingual Transfer Learning *Fumiya Kondo, Tamura Satoshi* **D2-0830_P1.8** 562 Exploring Machine Learning and Language Models for Multimodal Depression Detection *Javier Si Zhao Hong, Timothy Zoe Delaya, Sherwyn Chan Yin Kit, Pai Chet Ng, Xiaoxiao Miao*

08:30-10:00	**D2-0830_P2 Biomedical Signal Processing and Systems I** Location: Peony II **D2-0830_P2.1** 26 Predicting Problematic Internet Use in Children Using Feature-Rich Structured Data with Ensemble Machine Learning and Bayesian Optimisation *Niteesh K R, Pooja T S* **D2-0830_P2.2** 148 Phonocardiogram Signal Analysis for Myocardial Infarction Level Prediction Using Deep Learning Model *Ira Puspasari, Tati L.R. Mengko, Agung W. Setiawan, Miftah Pramudyo, Nobuo Watanabe, Trio Adiono* **D2-0830_P2.3** 173 Prediction of Maximum and Minimum Postprandial Blood Glucose Levels in People with Diabetes *Kotaro Nagayama, Shota Kato, Kana Eguchi, Masahide Hamaguchi, Hiroyuki Tominaga, Youji Hamaguchi, Michiaki Fukui, Manabu Kano* **D2-0830_P2.4** 214 Towards Telepathic Communication: A Multi-Band EEG Model for Imaginary Speech Decoding *Yifan Zhang, Yuting Ding, Fei Chen* **D2-0830_P2.5** 240 Tiny-VRN: A Lightweight Variational Residual Network for EEG-Based Emotion Recognition *Sivaraj Nimishan, Selvarajah Thuseethan, Shanmuganathan Vasanthapriyan, Roshan G. Ragel* **D2-0830_P2.6** 241 A Comparison of Solicited and Longitudinal Cough Sounds for Tuberculosis Detection *Aprianto Dwi Prasetyo, Bagus Tris Atmaja, Dhany Arifianto, Sakriani Sakti* **D2-0830_P2.7** 336 Detecting Defecation Premonition from the Acoustic Activity of Bowel Sounds *Shota Miyagawa, Toshitaka Yamakawa, Masayuki Tanabe, Kazushi Ikeda* **D2-0830_P2.8** 407 EegCNR: A Novel Feature for Attention Estimation from EEG *Asif M S, Sagila Gangadharan K, Achutavarrier Prasad Vinod* **D2-0830_P2.9** 413 Lower Limb Calf Muscle Segmentation from Diffusion-Weighted Magnetic Resonance Images Using Deep Learning *Eshan Pandey, Xiaomeng Wang, Julian Gan, Ying-Hwey Nai, Derek Hausenloy, Pek Lan Khong, Forest Su Lim Tan, Thiruneepan Selvakulasingam, Ryan Fraser Kirwan, Cheryl Pei Ling Lian* **D2-0830_P2.10** 415 Principal Component Regularization in Iterative Inversion of DBIM for Ultrasound Tomography *Nguyen Thi Thu, Tran Quang-Huy, Luong Thi Theu, Duc-Tan Tran* **D2-0830_P2.11** 447 Reasoning Visualization for Critical Care EEG Classification with Prototypical Part Networks *Takuma Bingo, Hajime Yano, Taichiro Ashizaki, Kazuma Koda, Masaya Togo, Riki Matsumoto, Tetsuya Takiguchi* **D2-0830_P2.12** 227 Plant Species-Specific Anomaly Detection Based on Electrophysiological Signals *Andy Desman Lo, Elvin Nur Furqon, Junaidul Islam, Isack Farady, Kahlil Muchtar, Ronnie Concepcion II, Chih-Yang Lin*
10:00-10:30	**Break**
10:30-12:00	**D2-1030_IB Active Noise Cancellation Panel Discussion** Location: Island Ballroom

10:30-12:00	**D2-1030_L1 Advanced Topics on Music Processing** Location: Lotus I **D2-1030_L1.1** 177 Drum-to-Vocal Percussion Sound Conversion and Its Evaluation Methodology *Rinka Nobukawa, Makito Kitamura, Tomohiko Nakamura, Shinnosuke Takamichi, Hiroshi Saruwatari* **D2-1030_L1.2** 283 How do Deaf and Hard of Hearing people listen to Music Instruments? Subjective Evaluation and Acoustic Features *Rumi Hiraga, Yuhki Shiraishi, Keiichi Yasu* **D2-1030_L1.3** 298 Quality Assessment of DNN–Based Algorithms for Music Boundary Detection *Aneeka Azmat, Li Su, ChengHsin Hsu* **D2-1030_L1.4** 319 Note-level Nonchord-tone Identification with Graph Neural Networks *Yui Uehara, Satoshi Tojo* **D2-1030_L1.5** 337 Evaluation Score Prediction for Japanese Songs Based on Melody Fitness to Lyrics *Sosuke Nishimura, Eita Nakamura* **D2-1030_L1.6** 349 A Comparative Study of Statistical Features and Deep Learning for Orchestral Texture Classification *Zih-Syuan Lin, Jun-You Wang, Li Su* **D2-1030_L1.7** 356 Efficient Transformer-Based Piano Transcription With Sparse Attention Mechanisms *Weixing Wei, Kazuyoshi Yoshii* **D2-1030_L1.8** 424 Transformer-Based Unpaired Piano Accompaniment Style Transfer *Hsin Ai, Yi-Hsuan Yang* **D2-1030_L1.9** 441 Designing a Music Difficulty Measure for Controllable Automatic Piano Rearrangement *Hikari Miyaji, Keito Sawada, Wen-Chin Huang, Tomoki Toda* **D2-1030_L1.10** 453 Vocal onset detection and pitch segmentation in medieval choral music guided by original notational sources *Samuel Bellows, Sarabeth Mullins, Brian Katz* **D2-1030_L1.11** 496 MORTM: MoE-Optimized Rhythmic Transformer Model for Symbolic MIDI Generation *Takaaki Nagoshi, Tetsuro Kitahara* **D2-1030_L1.12** 517 TAPA-ICL: Taxonomy-Aware Prompt Augmentation for In-Context Learning in Music Understanding *Jiahao Zhao, Yunjia Li, Kazuyoshi Yoshii*

10:30-12:00	**D2-1030_L2 Speech and Language Processing II** Location: Lotus II **D2-1030_L2.1** 97 Beyond Binary Detection: Multi-Etiology Dysarthria Classification with Pre-trained Speech Models *Zihan Zhong, Qianli Wang, Satwinder Singh, Clarion Mendes, Mark Hasegawa-Johnson, Waleed Abdulla, Seyed Reza Shahamiri* **D2-1030_L2.2** 118 A Dual-Path Speaker-Independent Acoustic-to-Articulatory Inversion Model Based On Content and Speaker Information Disentanglement *Qiang Fang* **D2-1030_L2.3** 120 Dementia Prediction From Speech Signal Using Optimized Prosodic Features *Bagus Tris Atmaja, Sakriani Sakti* **D2-1030_L2.4** 154 Speech Emotion Recognition via Entropy-Aware Score Selection *ChenYi Chua, JunKai Wong, Chengxin Chen, Xiaoxiao Miao* **D2-1030_L2.5** 264 Improving Exemplar-Based Electrolaryngeal Speech Voice Conversion via Robust Content Representations *Fo-Rui Li, Hsin-Te Hwang, Ming-Chi Yen, Men-Tung Lo, Yu Tsao, Hsin-Min Wang* **D2-1030_L2.6** 308 An Efficient Transfer Learning Method Based on Adapter with Local Attributes for Speech Emotion Recognition *Haoyu Song, Mcloughlin Ian, Qing Gu, Nan Jiang, Yan Song* **D2-1030_L2.7** 331 ASRQ-VC: ASR-Guided Speech Content Quantization for High-Fidelity Voice Conversion *Songting Liu, Deheng Ye, Wei Yang, Haoyang Li, Eng Siong Chng* **D2-1030_L2.8** 338 PUNSER: Large-Scale Pre-trained and Unified Model for Practical Speech Emotion Recognition *Yu Hayashizaki, Takashi Nose, Sumiharu Kobayashi, Satoru Fukayama, Akinori Ito* **D2-1030_L2.9** 440 Investigation of the effectiveness of converted speech auditory feedback in low-latency real-time voice conversion *Kiseki Niwa, Kazuhiro Kobayashi, Tomoki Toda* **D2-1030_L2.10** 587 Study on Signal Processing Techniques in Protecting Voice Personae Against Speech Synthesis Systems *Nopparut Li, Candy Olivia Mawalim, Masashi Unoki* **D2-1030_L2.11** 603 MixedG2P-T5: G2P-free Speech Synthesis for Mixed-script texts using Speech Self-Supervised Learning and Language Model *Joonyong Park, Daisuke Saito, Nobuaki Minematsu*

10:30-12:00	**D2-1030_H3 Emerging Technologies and Applications of Image Processing and Computer Vision** Location: Hibiscus III **D2-1030_H3.1** 54 You Only Touch Once: One-Touch System for Personalized 3D Music Video Generation *Kyungjune Lee, Youngjin Shin, Jungwoo Huh, Sanghoon Lee* **D2-1030_H3.2** 143 Single-Image Pupil Localization via Implicit 3D Eye Reconstruction *Taejun Roh, Yejin Cho, Duong Hai Nguyen, Chul Lee* **D2-1030_H3.3** 171 Flow-Guided Consistent Video Depth Estimation for Cross-Dataset Generalization *Jaeseok Jang, Chang-Su Kim* **D2-1030_H3.4** 196 DCB: An Efficient Approach for Building Long-Range Dependencies in CNNs *Tianxiang Lan, Mingyi He, Yuchao Dai* **D2-1030_H3.5** 269 A User-Guided and Local Motion-Adaptive Framework for Virtual Product Placement in Video *Tianwen Zhang, Ju-Won Seo, Kang-Min Kim, Keunsoo Ko* **D2-1030_H3.6** 332 Shallow yet Perceptual Decoding for Neural Image Compression through Minimal Nonlinearity *JaeKyung Ryu, Nam Ik Cho* **D2-1030_H3.7** 445 SyncScore: A Framework for Synchronization Scoring in Group Sports via Human Pose Estimation *Khai Pin Ang, Iven Zi Yin Low, Yumun Hooi, Yuen Peng Loh* **D2-1030_H3.8** 518 Data Augmentation-Driven Segmentation of Ovarian Tumor Ultrasound Images using Vision Mamba *Thanh-Phuc Dao, Huyen-Trang To, Hoang-Son Bui, Thi-Lan Le* **D2-1030_H3.9** 548 Optimizing JPEG Decoder for Bitstream-Corrupted Image Restoration *Shumin Jiang, Hao Qin, Tianyi Liu, Yi Wang* **D2-1030_H3.10** 568 Semantic Scene Completion from a Single Depth Image with Coarse-Grained Segmentation *Jiun Yen Ching, Lai-Kuan Wong, Wai Lee Kung* **D2-1030_H3.11** 572 Pixel-weighted Domain Adaptation for Agricultural Segmentation *Shunta Kimura, Handie Shao, Shogo Matsumoto, Daiki Yamada, Toshihiro Kitajima, Hideki Nakayama*
10:30-12:00	**D2-1030_P1 Biomedical Signal Processing and Systems II** Location: Peony I **D2-1030_P1.1** 454 Freeze and Learn using KAN for Infant Cry Classification *Arth Shah, Vishnu Vardhan, Hemant Patil* **D2-1030_P1.2** 466 Investigation of Enhancement Strategies for Recurrent Spiking Neural Network based Brain-Machine Interface Decoding *Wilson Tansil, Nur Ahmadi, Timothy Constandinou, Dessi Puji Lestari* **D2-1030_P1.3** 531 Detecting Deceptive Responses Due to Psychological Bias by the Probability Density Function of EEG Content Rate Dynamics During NEO-FFI Answering *Yuto Ashikawa, Yosuke Kurihara* **D2-1030_P1.4** 535 A Comparative Analysis of Statistical, Regional CNN, and Sequential Transformer Approaches for Alzheimer's Disease Classification *Trí Huynh, Xuan Hoc Pham, Nhu Nguyen, Thi Thu Nguyen, Huong Ha, Lua Ngo* **D2-1030_P1.5** 591 Beyond Speech and More: Investigating the Emergent Ability of Speech Pre-Trained Models for Classifying Physiological Time-Series Signals *Orchid Chetia Phukan, Swarup Ranjan Behera, Girish, Mohd Mujtaba Akhtar, Arun Balaji Buduru, Rajesh Sharma* **D2-1030_P1.6** 630 Channel Selection Guided by Layer-wise Relevance Propagation for CNN-Based EEG Classification of Major Depressive Disorder *Woo-Seok Ahn, Seung-Hwan Lee, Han-Jeong Hwang* **D2-1030_P1.7** 631 Development of HRV-Based Biomarkers for Predicting Blood Glucose Levels *Ju-An Park, Jun-Seok Lee, Na-Ri Kim, Han-Jeong Hwang* **D2-1030_P1.8** 632 Development of 3D Textile Electrodes for Electrocardiography Measurement *Sang-Ho Lee, In-Su Park, Han-Jeong Hwang*

10:30-12:00	**D2-1030_P2 Machine Learning: Algorithms and Application I** Location: Peony II **D2-1030_P2.1** 22 Kernel Ridge Regression for Efficient Learning of High-Capacity Hopfield Networks *Akira Tamamori* **D2-1030_P2.2** 47 Enhanced Sliding Discrete Fourier Transform (eSDFT) with Error-Bound Control for Real-Time Parallel Processing *Jetsada Arnin, Danial Kahani, Bernard A. Conway* **D2-1030_P2.3** 216 Sparse-Coded Time-Delay DMD with Control for Nonlinear State-Space Modeling on Graphs *Ryuto Ito, Hiromu Kanauchi, Hiroyasu Yasuda, Masaaki Nagahara, Shogo Muramatsu* **D2-1030_P2.4** 229 Nonnegative Matrix Factorization Using Dirichlet-Distribution-Based Regularization *Haru Ogawa, Daichi Kitamura, Shoma Ayano* **D2-1030_P2.5** 274 Significance of co-occurring biomarkers in localization of epileptic seizure onset zone *Nawara Mahmood Broti, Masaki Iwasaki, Yumie Ono* **D2-1030_P2.6** 294 Reinforcement Learning in Portfolio Management: A Survey of Methods and Trends *Silan Hu, Yulin Huang, Arjun Agarwal, Tanya Warrier, Yuwen Wang, Haozhe Ma, Zhengding Luo* **D2-1030_P2.7** 313 Large Sparse Covariance Matrix Estimation via Dual Proximal Gradient Method *Fengpei Li, Ziping Zhao* **D2-1030_P2.8** 361 An improved method for Image Shadow Removal by Combining Deterministic and Stochastic Models *Hongjun Sheng, Lanqing Guo, Xinggan Peng, Zhiping Lin, Bihan Wen* **D2-1030_P2.9** 576 Knowledge-Infused Topic Model for Empathetic Dialogue Response *Po-Chuan Chen, Jen-Tzung Chien* **D2-1030_P2.10** 578 Cross-Patient Seizure Onset Zone Classification by Patient-Dependent Weight *Xuyang ZHAO, Hidenori Sugano, Toshihisa Tanaka* **D2-1030_P2.11** 609 NOCTUA: A High-Efficiency Reconfigurable NoC-based Transformer Universal Accelerator *Kun-Chih Chen, Pin-Ching Shen, Bo-Chun Chen*
12:00-12:30	**Lunch**
12:30-13:30	**D2-1230_IB Women in APSIPA Forum** Location: Island Ballroom
13:30-14:30	**D2-1330_IB Keynote 2 by Jane Wang** Location: Island Ballroom
14:30-16:00	**D2-1430_IB Perspective 3: Neural Speech Assessment and Its Application** Location: Island Ballroom

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2025 Asia Pacific Signal and Information Processing Association Annual Summit and Conference (APSIPA ASC)

22-24 October 2025, Singapore

Technical Program

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08:30-10:00	**D3-0830_P1 Advanced Signal Processing and Resource Management for Sensing and Communication** Location: Peony I **D3-0830_P1.1** 144 A reinforcement learning-based approach to cooperative multi-UAV task allocation *Naohiro Kubota, Hideyoshi Miura, Tomotaka Kimura, Kouji Hirata* **D3-0830_P1.2** 167 Trajectory Design of UAVs-Assisted Edge Computing Systems for Efficient Data Collection from Animal Herds *Nao Maeda, Tomotaka Kimura, Kouji Hirata* **D3-0830_P1.3** 169 Priority-based RCSA method considering required frequency slot width in multi-core fiber networks *Funa Fukui, Yutaka Fukuchi, Kouji Hirata* **D3-0830_P1.4** 219 Retraining-Free Blockage Prediction for Millimeter-Wave Communications Based on Minor Components of Angular Power Profiles *Xiaoqing Tong, Kohei Mitani, Kazunori Hayashi, Koji Yamamoto, Takuto Arai, Shuki Wai, Tatsuhiko Iwakuni, Daisei Uchida* **D3-0830_P1.5** 220 Modified Resource Allocation Algorithm based on Co-channel Interference Prediction in Local 5G Environmentts *Takeru Nanjo, Osamu Takyu* **D3-0830_P1.6** 341 Implicit Interference Status Notification Through Time & Frequency Resource Selection in LoRaWAN *Yuto Hayasaka, Koichi Adachi* **D3-0830_P1.7** 400 Wireless Environment Estimation with Directional Antennas using Radio Environment Database for Wireless Information and Power Transfer in Smart Factories *Kohei Yuzawa, Takeo Fujii, Yoshiaki Narusue, Zhengdong Lin, Yu Kagaya* **D3-0830_P1.8** 416 Data-Driven Tuning of Neural Network Aided Least Squares for UWB-TDoA Indoor Positioning *Ryoichi Kawaguchi, Shinsuke Ibi, Hisato Iwai*

08:30-10:00	**D3-0830_P2 Machine Learning: Algorithms and Application II** Location: Peony II **D3-0830_P2.1** 83 Equivalence of Graph Signal Processing Using a Hermitian Graph Laplacian and Its Corresponding Graph Laplacian with Duplicated Nodes *Akira Tanaka* **D3-0830_P2.2** 207 Skeleton-sequence-based Early Action Recognition by Using Graph Convolutional Neural Networks and Knowledge Distillation Techniques *Wen-Nung Lie, Kien Truc Le, Veasna Vann, Jui-Chiu Chiang, Ngoc Dung Bui* **D3-0830_P2.3** 232 A State-Dependent Model for Identification of Time-varying Directed Graphs *Yuzhe Li, Hangjing Zhang, H. Vicky Zhao* **D3-0830_P2.4** 309 Unrolled Multimodal Signal Restoration with Signed Twofold Graph Learning *Haruki Yokota, Yuichi Tanaka, Higashi Hiroshi* **D3-0830_P2.5** 343 Efficient Sparse Matrix Acceleration for Deep Learning via Two-Step Bitmap Tensor Architecture *Jia-Hong Weng, Tu Wei-Chen* **D3-0830_P2.6** 352 Distance-based Laplacian Algebra for Effective Subgraph Filter Learning *Purui Zhang, Feng Ji, Yanan Zhao, Wee Peng Tay, Bihan Wen* **D3-0830_P2.7** 370 Evaluation of Low-Resource and High-Efficiency Deep Learning Accelerator for Clinical Dental Diagnosis *Lin Yuan-Jin, Chang Yu-Jen, Liang Chin-Hao, Wei Sung-Tsun, Weng Jia-Hong, Chen Shih-Lun, Tu Wei-Chen* **D3-0830_P2.8** 412 Quantization Index Modulation-based Reversible Data Hiding in Compressed Neural Network *Jun Hirano, Jonethe Tan Yang, Fathin Acyuta Makarim, Daham Jayasinghe, KokSheik Wong* **D3-0830_P2.9** 460 Dense Vector Retrieval in Data Federation *Amorntip Prayoonwong, Yang-Chun Hsu, Xin-Jie Ye, Po-Kai Lu, Chih-Hang Wang, Chih-Yi Chiu* **D3-0830_P2.10** 557 Organ Detection Based on Vision-Language Model For Abdominal CT Images *Jun-Hong Ou, Bo-Xian Wang, Yu-Hong Zheng, Sufal K. Chhabra, Guo-SHiang Lin, Shen-Lei Yan, Chen-Kuo Chiang* **D3-0830_P2.11** 644 Locally-Structured Unitary Network *Shogo Muramatsu*
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10:30-12:00	**D3-1030_IB Conference Award Session II** Location: Island Ballroom **D3-1030_IB.1** 69 Digital-Optical Hybrid Computation for Deep Unfolding-Aided MIMO Signal Detection *Takumi Nishiyama, Lantian Wei, Tadashi Wadayama* **D3-1030_IB.2** 284 Uncolorable Examples: Preventing Unauthorized AI Colorization via Perception-Aware Chroma-Restrictive Perturbation *Yuki Nii, Futa Waseda, Ching-Chun Chang, Isao Echizen* **D3-1030_IB.3** 36 Voice Conversion Augmentation for Speaker Recognition on Defective Datasets *Ruijie Tao, Zhan Shi, Yidi Jiang, Tianchi Liu, Haizhou Li* **D3-1030_IB.4** 355 Explainable Disentanglement on Discrete Speech Representations for Noise-Robust ASR *Shreyas Gopal, Ashutosh Anshul, Haoyang Li, Yue Heng Yeo, Hexin Liu, Eng Siong Chng* **D3-1030_IB.5** 530 Rethinking Robust ASR Strategies: Can Textual In-Context Learning Improve Acoustic Robustness? *Benita Angela Titalim, Faisal Mehmood, Sakriani Sakti* **D3-1030_IB.6** 586 Noro: Noise-Robust One-shot Voice Conversion with Hidden Speaker Representation Learning *Haorui He, Yucheng Song, Yuancheng Wang, Haoyang Li, Xueyao Zhang, Li Wang, Gongping Huang, Eng Siong Chng, Zhizheng Wu*

10:30-12:00	**D3-1030_L1 Grand Challenge & Audio Processing** Location: Lotus I **D3-1030_L1.1** 110 DG-SED: Domain Generalization for Sound Event Detection with Heterogeneous Training Data *Yang Xiao, Han Yin, Jisheng Bai, Rohan Kumar Das* **D3-1030_L1.2** 138 Accelerated Convolutive Transfer Function-Based Multichannel NMF Using Iterative Source Steering *Xuemai Xie, Xianrui Wang, Liyuan Zhang, Yichen Yang, Shoji Makino* **D3-1030_L1.3** 139 DySiME: Dynamic Single-Source Multichannel Enhancement Using Time-Varying Directional Cues *Hao Liang, Yichen Yang, Xiao Zhang, Shoji Makino, Jingdong Chen* **D3-1030_L1.4** 228 Demixing Filter Estimation for Bleeding-Sound Reduction of a Vocal Microphone *Soushi Taninomiya, Daichi Kitamura, Norihiro Takamune, Kouei Yamaoka, Hiroshi Saruwatari, Yu Takahashi, Kazunobu Kondo, Hayato Yamakawa* **D3-1030_L1.5** 401 Prior-Guided Source Separation with Direct Update of Back-projected Demixing Vectors *Kukuru Koiso, Taishi Nakashima, Nobutaka Ono* **D3-1030_L1.6** 588 Meta-Learning with Pretrained Audio Representations Enables One-Shot Acoustic Signal Classification *Haoxiang Wu, Zhengqiao Zhao, Jingdong Chen, Jacob Benesty* **D3-1030_L1.7** 634 Self-Rotation-Robust Online-Independent Vector Analysis with Sound Field Interpolation on Circular Microphone Array *Taishi Nakashima, Yukoh Wakabayashi, Nobutaka Ono* **D3-1030_L1.8** 642 A Streamable Neural Audio Codec with Residual Scalar-Vector Quantization for Real-Time Communication *Xiao-Hang Jiang, Yang Ai, Rui-Chen Zheng, Zhen-Hua Ling* **D3-1030_L1.9** 648 A Semi-Supervised Acoustic Scene Classification Network Based on Multi-Modal Information Fusion *Junkang Yang, Hongqing Liu, Liming Shi, Lu Gan, Hiromitsu Nishizaki, Chee Siang Leow* **D3-1030_L1.10** 651 ASCMamba: Multimodal Time-Frequency Mamba for Acoustic Scene Classification *Bochao Sun, Dong Wang, Zhanlong Yang, Jun Yang, Han Yin* **D3-1030_L1.11** 652 Evaluation of Low-Frequency Restriction, Pitch-Shift Augmentation, and Average Pooling for Acoustic Scene Classification under Unseen-City Conditions *Takao Kawamura, Masayuki Sera, Nobutaka Ono* **D3-1030_L1.12** 653 The APSIPA ASC 2025 Grand Challenge on City and Time-Aware Semi-supervised Acoustic Scene Classification: Summary and Results *Jisheng Bai, Mou Wang, Haohe Liu, Bin Xiang, Yin Liu, Jianfeng Chen, Dongyuan Shi, Mark Plumbley, Susanto Rahardja, Woon-Seng Gan*

10:30-12:00	**D3-1030_L2 Speech Recognition and Understanding I** Location: Lotus II **D3-1030_L2.1** 195 Phoneme-grapheme Dictionary-based Prompting for Robust Proper Noun Recognition in Japanese ASR *Ryuga Sugano, Hiroaki Sato, Asahi Sakuma, Tadashi Kumano, Yoshihiko Kawai, Shinji Watanabe* **D3-1030_L2.2** 282 LLM-Driven Hypothesis Set Refinement for Enhanced ASR Post-Processing *Chen-Han Wu, Kuan-Yu Chen* **D3-1030_L2.3** 390 Real-time VAD-less speech recognition by fine-tuning SSL model with data containing tagged non-speech segments *Jotaro Emoto, Ryota Nishimura, Kengo Ohta, Norihide Kitaoka* **D3-1030_L2.4** 406 Improving Automatic Speech Recognition Model for Super-Elderly Voice Using Speech Synthesis Model *Ryota Uematsu, Chee Siang Leow, Norihide Kitaoka, Hiromitsu Nishizaki* **D3-1030_L2.5** 426 Improving Code-Switching Speech Recognition with TTS Data Augmentation *Yue Heng Yeo, Yu Chen Hu, Shreyas Gopal, Yi Zhou Peng, He Xin Liu, Eng Siong Chng* **D3-1030_L2.6** 443 PQSR: A Speech Corpus of Polar Questions and Spontaneous Responses in Standard Chinese with Complex Intentions Annotated *Yingyi Luo, Yue Huang, Qingke Sun, Shuwen Chen* **D3-1030_L2.7** 475 Toward Natural System Repair: An Analysis of Human Other-Initiated Self-Repair Patterns in Japanese Casual Conversations *Kazuya Tsubokura, Yurie Iribe, Norihide Kitaoka* **D3-1030_L2.8** 524 Self-Supervised Learning for Classification of Normal vs. Dysarthric Speech *Hiya Chaudhari, Kavya Kumar, Hemant Patil* **D3-1030_L2.9** 592 Investigating Polyglot Speech Foundation Models for Learning Collective Emotion from Crowds *Orchid Chetia Phukan, Girish, Mohd Mujtaba Akhtar, Panchal Nayak, Priyabrata Mallick, Swarup Ranjan Behera, Parabattina Bhagath, Pailla Balakrishna Reddy, Arun Balaji Buduru* **D3-1030_L2.10** 593 Rethinking Cross-Corpus Speech Emotion Recognition Benchmarking: Are Paralinguistic Pre-Trained Representations Sufficient? *Orchid Chetia Phukan, Mohd Mujtaba Akhtar, Girish, Swarup Ranjan Behera, Parabattina Bhagath, Pailla Balakrishna Reddy, Arun Balaji Buduru*

10:30-12:00	**D3-1030_H3 Recent Advances in Multimodal Learning for Computer Vision** Location: Hibiscus III **D3-1030_H3.1** 52 Allegory of the Cave: Breakdown of Illusions in Multimodal Perception with Neural Radiance Fields *Axel Paivansalo, Ching-Chun Chang, Hanrui Wang, Futa Waseda, Isao Echizen* **D3-1030_H3.2** 53 Overlapped Coffee Beans Detection and Localization Using a Low-Cost 3D Monocular Point Cloud Clustering Method *Isack Farady, Alifya Febriana, Chih-Yang Lin* **D3-1030_H3.3** 160 Interpretable Video-Text Alignment (VTA) for Cross-Modal Retrieval *Tsung-Shan Yang, Yun-Cheng Wang, Chengwei Wei, Suya You, C.-C. Jay Kuo* **D3-1030_H3.4** 205 Sequence Modeling and Generative Model Driven Non-Rigid 3D Reconstruction *Yuxin He, Hui Deng, Mingyi He, Yuchao Dai* **D3-1030_H3.5** 302 Robust Audio-Visual Speech Recognition in Noisy Clinical Environments *Akshita Abrol, Ridwan Arefeen, Haotong Yu, Alexi George, Kelvin Li, Zhengkui Wang, Rong Tong* **D3-1030_H3.6** 334 Integrating Visual XAI and LLMs for Interpretable Medical Image Analysis *Chern Hong Lim, Xin Hui Lor* **D3-1030_H3.7** 363 InternVL-VPR: Hierarchical Zero-Shot Visual Place Recognition with VLM-driven Re-Ranking *Zhi Hu, Liang Liao, Weisi Lin* **D3-1030_H3.8** 375 Token Compression Meets Compact Vision Transformers: A Survey and Comparative Evaluation for Edge AI *Phat Nguyen, Ngai-Man Cheung* **D3-1030_H3.9** 388 Adapting Vision-Language Models for Information Extraction from Bilingual Medical Invoices *Ha Do, Anh Dung DO, Thanh-Ha DO* **D3-1030_H3.10** 399 Zero-shot Artistic Text Recognition with Multimodal Language Models *Tien Do, Thuyen Tran, Duy-Dinh Le, Thanh Duc Ngo* **D3-1030_H3.11** 604 Attention Based Deep Reference Frame Enhancement for VVC Inter Prediction *Linchen Xu, Zhikai Liu, Fan Liang*
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10:30-12:00	**D3-1030_P2 Machine Learning: Algorithms and Application III** Location: Peony II **D3-1030_P2.1** 35 Audio-Visual Fusion Framework for Low-Resource Language Speech Recognition Based on Progressive Down-sampling and Grouped Multi-Heads Attention Mechanism *ChongChong Yu, Xiaolong Xu, Zhaopeng Qian, Kejing Xiao, Yuchen Tan* **D3-1030_P2.2** 239 A Data-Driven Control Framework Using Deep Reinforcement Learning for Autonomous Driving *Mei-Lin Huang, Ching-Hung Lee, Cheng-Ting Huang, Hsin-Han Chiang* **D3-1030_P2.3** 291 Recipe Diffusion: Cross-Frame Attention and Region-Aware Diffusion for Coherent Visual Recipe Instruction Generation *Weiyi Xia, Satoru Fujita* **D3-1030_P2.4** 311 Improving Few-Shot Classification via Feature-Aligned AI-Generated Images *Yu-Wen Tung, Mei-Chen Yeh* **D3-1030_P2.5** 312 Rotation Invariant Automatic Rigging for 3D Human Scan Data *Yiqing Li, Satoru Fujita* **D3-1030_P2.6** 314 SinDiffPhase: High-Quality Phase Estimation with Ultra-Fast Single-Step Diffusion *Yifei Ni, Andong Li, Lingling Dai, Erwei Yin, Qunping Ni, Chengshi Zheng* **D3-1030_P2.7** 411 MapCVAE: Probabilistic Prediction of Diverse Pedestrian Behaviors on General Roads *Konosuke Kobayashi, Satoru Fujita* **D3-1030_P2.8** 457 Herald: Democratizing Compositional Reasoning for Visual Tasks without Any Training *Guan Yuan Tan, Arghya Pal, Sailaja Rajanala, Raphael C.-W. Phan, Chee-Ming Ting* **D3-1030_P2.9** 493 Canopy to Canopy: Evaluating Model Generalization In 3D Tropical Forest Semantic Segmentation *Sue Han Lee, Brenda Ru Yi Sim, Chung Siung Choo, Yuen Peng Loh* **D3-1030_P2.10** 520 LSTM-Transformer Hybrid Network for UAV-Bird Classification Using Radar Track Information *Anning Jiang, Dianfeng Qiao, Shun Liu, Yan Liang* **D3-1030_P2.11** 559 A Unified Framework for Interpretable and Uncertainty-Aware Battery State of Health Estimation Using Deep Neural Networks *Elias Isaac Huai-En Lim, Nicholas Heng Loong Wong*
12:00-13:30	**Lunch**
13:30-14:30	**D3-1330_IB Keyntoe 3 by Xiao-Ping (Steven) Zhang** Location: Island Ballroom
14:30-16:00	**D3-1430_IB Perspective 4: Leveraging LLMs in Interdisciplinary Study of Speech and Language** Location: Island Ballroom

14:30-16:00	**D3-1430_L1 Speech Synthesis, Enhancement, and Recognition** Location: Lotus I **D3-1430_L1.1** 17 End-to-End Simultaneous Dysarthric Speech Reconstruction with Frame-Level Adaptor and Multiple Wait-k Knowledge Distillation *Minghui Wu, Haitao Tang, Jiahuan Fan, Ruizhi Liao, Yanyong Zhang* **D3-1430_L1.2** 48 Disfluency Disentanglement Enhancement in Spoken-Text-Style Transfer for Spontaneous Speech Synthesis *Yuuto Nakata, Daiki Yoshioka, Wen-Chin Huang, Tomoki Toda* **D3-1430_L1.3** 98 DARS: Dysarthria-Aware Rhythm-Style Synthesis for ASR Enhancement *Minghui Wu, Xueling Liu, Jiahuan Fan, Haitao Tang, Yanyong Zhang, Yue Zhang* **D3-1430_L1.4** 149 Emotion-Rich Cross-Speaker TTS via Contrastive Prosody Enhancement *Jen-Tzung Chien, Bryan Gautama Ngo* **D3-1430_L1.5** 243 Face-conditioned Large-scale Text-to-Speech via Speaker Embedding Prediction from Facial Images *Umi Okamoto, Sei Ueno, Akinobu Lee* **D3-1430_L1.6** 304 Few-shot Speaker Adaptation for Text-to-Speech Synthesis Using Non-Target Speaker Corpora for Glossectomy Patients *Masayori Okamura, Masanobu Abe, Sunao Hara* **D3-1430_L1.7** 491 Personalized Bone-Conduction Bandwidth Extension with Speaker Characteristics *Pan Xu, Zhongyu Zhang, Zhonghua Fu* **D3-1430_L1.8** 500 Time-Aligned Laughter Sound Event Recognition for Conversational Laughter Analysis and Synthesis *Hiroki Mori* **D3-1430_L1.9** 554 PALGAN: A Joint Optimization-Based Preprocessing Method for Speech Restoration in Parametric Array Loudspeakers *Wenyao Ma, Jun Yang* **D3-1430_L1.10** 600 Beyond One-Shot Dubbing: Leveraging N-Best Translation and Prompted Paraphrasing with Synchrony-Aware Re-Ranking *Jan Saragih, Faisal Mehmood, Sakriani Sakti*

14:30-16:00	**D3-1430_L2 Speech Recognition and Understanding II** Location: Lotus II **D3-1430_L2.1** 151 Probabilistic Language-Aware Speech Recognition *Jen-Tzung Chien, Willianto Sulaiman, Chung-Hsuan Wang* **D3-1430_L2.2** 226 LLMs-Integrated Automatic Hate Speech Recognition Using Controllable Text Generation Models *Ryutaro Oshima, Yuya Hosoda, Yoji Iiguni* **D3-1430_L2.3** 238 Multi-stage Speech Enhancement with Cascaded SNR Domain Shifts *Xiaoran Li, Zilu Guo, Jun Du* **D3-1430_L2.4** 280 Autoencoder-Driven Latent Representation Learning for Language-Agnostic Disordered Speech Classification using a Universal Feature set *Puneet Bawa, Virender Kadyan, Shareef Babu Kalluri* **D3-1430_L2.5** 296 FH-RestoreASR: Frequency-Hopping Robust Air Traffic Control Speech Restoration and Recognition *Youngeun Kwon, Yeri Byun, Hyunsung Cho, Jongwon Choi* **D3-1430_L2.6** 342 Speech Intelligibility Assessment with Uncertainty-Aware Whisper Embeddings and sLSTM *Ryandhimas Zezario, Dyah Wisnu, Hsin-Min Wang, Yu Tsao* **D3-1430_L2.7** 392 GCI detection and glottal wave estimation based on TV-CAR speech analysis *Keiichi Funaki* **D3-1430_L2.8** 405 HIPA-MoE: A Parameter-Efficient Fine-Tuning Architecture with Hierarchical Adapter-based Mixture-of-Experts for Multilingual ASR *Xun Lu, Xuyang Wang, Gaofeng Cheng, Lin Zheng, Pengyuan Zhang* **D3-1430_L2.9** 542 Mild Cognitive Impairment Detection via Linear Discriminant Analysis of Picture Description Speech Features: A Cross Corpus Comparison *Yan-Lin Lai, Erh-Yun Chang, Yi-Wen Liu, Jung Lung Hsu, Hui-Chuan Hsu* **D3-1430_L2.10** 556 Parameter-Efficient Fine-Tuning of Foundation Models for CLP Speech Classification *Susmita Bhattacharjee, Jagabandhu Mishra, H.S. Shekhawat, S R Mahadeva Prasanna* **D3-1430_L2.11** 575 Language Awareness in Code-Switching Speech Recognition *Jen-Tzung Chien, Bobbi Aditya*

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16:00-16:30	**Break**
16:30-18:00	**D3-1630_IB APSIPA General Assembly, Founders' Forum & Closing Ceremony** Location: Island Ballroom