

SARIG & IEEE AES10/GRS29 2023 BIENNIAL RADAR CONFERENCE & TUTORIAL

07 & 08 NOVEMBER 2023



Radar Conference & Tutorial Registration: <https://qkt.io/sarigconf>

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The Influence of Artificial Intelligence on Radar Technology

Venue: CSIR International Convention Centre

TIME	TOPIC	TIME	SPEAKER
07:30-08:10	Registration	40 min	-
08:10-08:20	Opening	10 min	Mr. Molahlegi Molohe(Armscor)
08:20-08:30	Welcoming Address	10 min	Prof (Emeritus) Mike Inggs (DragonFly)
08:30-08:55	Keynote speaker	25 min	Brig. Gen. A. Barends (DTD)
08:55-09:20	Mapping the Future: Industry 4.0's Impact on Electronic Warfare Strategy and Technology Evolution	25 min	Mr Reeshen Reddy (CSIR)
09:20-09:50	Morning break - Tea/Coffee	30 min	-
09:50-10:15	Open-Set Recognition of Radar Emitters	25 min	Mr Thomas Gwasira (Peralex)
10:15-10:40	Breath-taking Opportunities presented by generative AI in the Domain of Radar and Electronic Defence	25 min	Prof. Amit Mishra (UCT)
10:40-11:05	Value added by AI throughout the product life cycle	25 min	Mr Eben du Plessis & Mr Chris Mocke (Hensoldt)
11:05-11:30	Drone Radar for Agriculture	25 min	Prof (Emeritus) Mike Inggs (DragonFly)
11:30-11:55	Drone detection and classification using mmWave FMCW radar	25 min	Mr William Bourn (UCT)
11:55-12:20	Node Placement for Bi-static Radar Networks	25 min	Mr. Waldi van der Lingen (UP)
12:20-13:20	Lunch	60 min	-
13:20-13:45	A staring Array Radar architecture for detection and classification of low-observable targets	25 min	Dr. J Taylor (RRS)
13:45-14:10	A Stepped CW Approach to Ice Thickness Measurements in the Antarctic Region	25 min	Mr Dylan White (UCT)
14:10-14:35	The development of a car following behaviour detection system based on fuzzy logic	25 min	Mr Siphon Sithole (TUT)
14:35-15:00	Target Tracking using AI	25 min	Mr Neil-John Lord (UP)
15:00-15:30	Afternoon break – Tea/Coffee	30 min	-
15:30-15:55	Towards a Generalised Passive Radar Processing Chain	25 min	Dr Stephen Paine (UCT)
15:55-16:20	Non-Uniform PRIs with Reduced Side lobes	25 min	Prof. Warren du Plessis (UP)
16:20-16:45	Towards a next generation Sensors and Electronic Warfare Engagement Simulation (SEWES) architecture for M&S of intelligent systems	25 min	Mr Brian Burmeister (CSIR)
16:45-16:55	Closing	10 min	Dr Gideon Wiid (UCT)

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TIME	TOPIC	TIME	SPEAKER
07:30-08:00	Registration	30 min	-
08:00-10:00	An introduction to AI and machine learning: Applications to radar and optical imaging	2 hrs	Dr Hildegard Koen (CSIR)
10:00 – 10:30	Tea Break	30 mins	
10:30 – 12:00	An introduction to AI and machine learning: Applications to radar and optical imaging	1.5 hrs	Dr Hildegard Koen (CSIR)
12:00- 13:00	Lunch	1 hr	
13:00 – 15:00	Deep learning for mmWave/THz communications and radar	2 hrs	Dr Kumar Vijay Mishra & Dr Ahmet Elbir (US Army Research Laboratory)
15:00 – 15:30	Tea Break	30 mins	
15:30 -17:00	Deep learning for mmWave/THz communications and radar	1.5 hrs	Dr Kumar Vijay Mishra & Dr Ahmet Elbir (US Army Research Laboratory)