

Welcome to the new IEEE Open Journal on Immersive Displays

Dear readers, it my great pleasure to introduce you to the new IEEE Open Journal on Immersive Displays (OJ-ID). It is a gold open-access, fully electronic scientific journal publishing papers in immersive display science and applications integral to technologies advancing the Metaverse. The journal's mission is to provide the immersive display science and applications community with a high-quality, peer-reviewed journal that fosters technological innovation and excellence while meeting author needs to publish within their funding requirements.

Immersive display technology is expected to explode with emergence of the massively-disruptive Web 3.0, where decentralization, trust less and permissionless access, artificial intelligence (AI) and machine learning, and connectivity and ubiquity, are expected to be characteristic attributes. Immersive displays are expected to be a critical interface fuelling this development, just as smartphones, mobile WiFi, and social networks drove the exponential growth of Web 2.0. The field of immersive displays is diverse, ranging from the science and engineering of materials and devices to their application in high definition, form-factor-independent displays featuring interactivity, virtual and augmented reality, and 3D content. Submissions on advanced fabrication processing, thin film active and passive devices, and lifetime and reliability evaluation will be welcomed when display is the focus or where there is a direct relationship to the nature of the display system.

As part of the launch, an Inaugural Issue has been launched, comprising a number of invited reviews, from a select number of highly venerated leaders in displays and related fields (<u>IEEE Xplore Full-Text PDF</u>: and <u>IEEE</u> <u>Open Journal on Immersive Displays | Current Volume | IEEE Xplore</u>)</u>. The reviews cover the scientific and related technical achievements in this auspicious field of displays that continues to lead modern society to unprecedented levels.

OJ-ID is a joint publication of the Electron Devices Society, Consumer Technology Society, Industry Applications Society, Instrumentation and Measurement Society, Photonics Society, Solid-State Circuits Society, Circuits and Systems (CAS), Systems, Man, and Cybernetics Society, Communications Society, and Electronic Packaging Society (EPS).

Looking ahead, we invite you to be among the early contributors to have your article peer-reviewed and published in the new journal. This is an exciting opportunity for your research to benefit from the high visibility and interest the journal's marketing launch will generate. Your research will also be exposed to more than 5 million unique monthly users of the IEEE Xplore® Digital Library. The rapid peer-reviewed process targets a publication time frame of less than 10 weeks for most accepted papers and will draw on IEEE's expert technical community's continued commitment to publishing the most highly-cited content. This journal is fully open and compliant with funder mandates, including Plan S.

Looking forward to your involvement as a quality author, dedicated reviewer and a future editor of the IEEE Open Journal on Immersive Displays!

By Arokia Nathan Editor-in-Chief

Title	Author	One-liner	Graphic
High Picture Quality Quantum- Dot Light-Emitting Diode Display Technologies for Immersive Displays	Jo et al., Dept of Engineering, Cambridge University, Cambridge, UK	Reviews fundamental concepts and breakthroughs in quantum dot LED materials, optimized device architectures, innovative fabrication processes, and recent developments of their deployment in immersive AR and VR display systems.	(a) Ligand (b) Shell Core Shell (c)
Neuromorphic Sensor-Perception Systems for Immersive Displays	Lei et al., Dept of Electronic and Computer Eng., Hong Kong University of Science and Technology, Hong Kong, SAR, China	Using metal oxide backplane technology, the authors review and demonstrate an analog front end system for bio- potential acquisition, along with sensor arrays for deployment in an immersive display.	Human-Machine Interface Buo Potential Acquisition Timmersive Displays Visual Visual Visual Visual Visual Visual Visual Visual
Display and Optics Architecture for Meta's AR/VR Development	Rao et al., Meta, Redmond (WA), Sunnyvale (CA) USA	The authors reviews the architecture of Meta's display and optics system along with the visual performance evaluation matrices that support the most optimized visual experience for Meta's AR/VR applications.	