RIR POWER ELECTRONICS LIMITED

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Registered/Corporate Office: B-139/141,Solaris 1, Saki Vihar Road, Powai, Andheri (E), Mumbai-400072. MH

Ref. RIR/SEC/13907/2026 7th July, 2026

Bombay Stock Exchange Limited
Corporate Relationship Department,
1st Floor, Rotunda Building,
P. J. Towers, Dalal Street,
Mumbai-400001

Scrip Code : 517035

Sub.: Submission of Press Release : RIR Power Electronics and Silicon University Secure Two Research Paper Selections at IEEE MWSCAS 2026

Dear Sir/Madam,

With reference to the above subject, please find enclosed herewith Press Release on the subject **"RIR Power Electronics and Silicon University Secure Two Research Paper Selections at IEEE MWSCAS 2026"**

Kindly take the same on record.

Thanking you.

Yours faithfully,
For **RIR POWER ELECTRONICS LIMITED**

Bhavin Premji Rambhia
Digitally signed by Bhavin Premji Rambhia
Date: 2026.07.07 11:23:41 +05'30'

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RIR Power Electronics and Silicon University Secure Two Research Paper Selections at IEEE MWSCAS 2026

The research papers highlight the potential to improve efficiency & reliability in next-generation electric mobility & future industrial applications

Industry-academia collaboration advances India's Silicon Carbide (SiC) semiconductor research on the global stage

Mumbai, July 07, 2026: RIR Power Electronics Ltd., in collaboration with Silicon University, Odisha, has achieved a significant milestone with two joint research papers being selected for presentation at the prestigious IEEE Midwest Symposium on Circuits and Systems (MWSCAS) 2026, to be held in Cincinnati, Ohio, USA.

The two accepted research papers address key challenges in High-voltage Power Electronics, thermal management, switching efficiency, and compact system design and architecture.

The first paper presents a comprehensive analytical and simulation-based comparison of silicon carbide (SiC) MOSFET and conventional Silicon IGBT Traction Inverter Topologies. Using a 33 kW Permanent Magnet Synchronous Motor (PMSM) drive model, the research demonstrates the superior electrical and thermal performance of 3.3 kV SiC MOSFET technology, highlighting its potential to improve efficiency and reliability in next-generation electric mobility applications.

The second paper explores advancements in 4H-SiC Implant Epitaxy MOSFET designs for High-voltage Power Electronics applications from 3.3 kV onwards. Using Silvaco Technology Computer-Aided Design (TCAD) tools, the research examines the balance between manufacturing simplicity and device performance to enable more efficient, reliable, and compact High-voltage SiC Power Devices for future industrial and energy applications.

Dr. Jaideep Talukdar, Vice Chancellor, Silicon University, Odisha, said, *"The selection of two joint research papers at IEEE MWSCAS 2026 reflects the strength of meaningful collaboration between academia and industry in accelerating innovation in wide-bandgap power semiconductors and practical power electronics systems."*

Dr. Harshad Mehta, Non-Executive Chairman, RIR Power Electronics Ltd., said, *"The acceptance of these two research papers at IEEE MWSCAS 2026 is a testament to the strength of our partnership with Silicon University and our shared vision of advancing silicon carbide technologies. As India accelerates its semiconductor ambitions, collaborations between industry and academia will be instrumental in building indigenous capabilities and developing globally competitive power semiconductor solutions."*

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The achievement highlights the success of the strategic industry-academia partnership established under the Memorandum of Understanding (MoU) signed between RIR Power Electronics and Silicon University in November 2025. The collaboration focuses on advancing next-generation Silicon Carbide (SiC) Semiconductor Devices and High-voltage Power Electronics technologies that are critical for electric mobility, renewable energy, industrial automation, and modern power infrastructure. Together, these research contributions strengthen the growing body of work in silicon carbide technology and reinforce India's capabilities in advanced semiconductor research and Power Electronics innovation.

The recognition at IEEE MWSCAS 2026 marks another important milestone in the ongoing collaboration between RIR Power Electronics and Silicon University, reaffirming their commitment to driving innovation in wide-bandgap Semiconductors and contributing to the development of next-generation Power Electronics technologies for global markets.

About RIR Power Electronics Limited:

RIR Power Electronics Limited (Bombay Stock Exchange: BSE) is a global pioneer in high-power semiconductor solutions, driving innovation and energy efficiency. Its portfolio of high-performance semiconductor devices, assemblies, and energy management systems enables customers to address the evolving demands of modern energy systems. The company's innovative products and solutions empower energy performance at the highest level in both existing and emerging applications. Trusted worldwide for reliability and performance, RIR stands at the forefront of sustainable energy innovation powering progress, one breakthrough at a time. For more information, visit RIR's website at www.rirpowersemi.com

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