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ASX: NVU

Nanoveu Accelerates Commercialisation with 16nm ECS-DoT Chip Fabrication on Track for Q4 CY2025

16nm Ultra-Low Power Edge-AI Hardware To Bolster Nanoveu's Position in the Global Semiconductor Landscape

Highlights

- Fabrication of Nanoveu's proprietary 16nm ECS-DoT chip targeting Q4 CY2025 completion using TSMC's FinFET process.
- Strategic partnership with Center for Nanoelectronics and Devices ("CND") provides access to top-tier regional engineering talent, with significant cost efficiency.
- 24-member engineering team recruited in collaboration with CND to drive full-stack innovation across analog, digital, and embedded systems.
- In-house analog design underway for wireless, A/D-D/A, and power modules for ultra-low-power communication.
- Digital team focussed on AI-optimised, memory-centric architectures and full SoC design.
- Transition to BGA packaging supports ultra-compact deployment across drones, wearables, and IoT.
- Embedded software and edge AI teams currently expanding across Egypt and Singapore.

Nanoveu Limited (ASX: NVU) ("Nanoveu" or the "Company"), a technology innovator across advanced semiconductor, visualisation, and materials science, is pleased to provide an update to shareholders on the continued progress of its ECS-DoT Chip, designed for extreme power efficiency and ultra-low latency applications, leveraging TSMC's 16nm FinFET process.

Under the leadership of Professor Mohamed M. Sabry Aly, with technical oversight from Prof. Yehia Ismail, Director of Center of Nanoelectronics and Devices ("CND"), and the VP of Systems Engineering, Nanoveu has made meaningful strides toward tape-out and chip fabrication, targeted for completion in Q4 CY2025.

Specialised Engineering Team Driving Full-Stack Innovation

Nanoveu's ECS-DoT program is powered by a world-class engineering team, carefully assembled to deliver deep technical expertise across the full chip development stack. This multidisciplinary group combines academic excellence with real-world engineering execution, ensuring sustained innovation.

The team includes:

- 4 senior PhD-level engineers contributing advanced academic insight,
- 5 experienced engineers with significant industry expertise,
- 5 mid-level engineers, and
- 7 junior engineers and interns,

creating a strategically tiered talent pipeline that enables full-stack development and supports the scalability of proprietary IP.

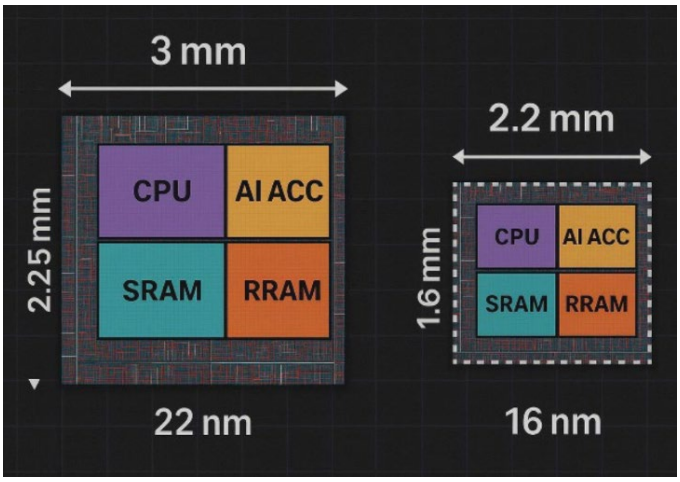

Figure 1. Schematic diagrams of a chip designed with both 22nm and 16nm technology nodes. 16nm provides 50% area benefits with simultaneous 25% power benefits)

Analog Group Focused on Power-Efficient Circuitry

Nanoveu's 10-member analog engineering division is focused on delivering core module designs in-house, including wireless circuitry, analog-to-digital and digital-to-analog converters, and integrated power management units. These modules form the foundation for low-power communication, essential to next-generation edge applications such as:

- Wearable health monitors;
- Smart industrial sensors;
- Asset-tracking devices; and
- Compact robotics and autonomous systems.

Digital Team Pushing AI and Memory System Boundaries

Concurrently, the digital engineering team is designing full-system digital architecture that integrates:

- On-chip memory innovations,
- AI system optimisation techniques, and
- Advanced I/O and interface frameworks

to support intelligent decision-making at the edge with minimal power draw and ultra-low latency.

These developments are aligned with Nanoveu's long-term objective to deliver intelligent, energy-efficient, real-time AI hardware into commercial and industrial markets.

Advanced Packaging for Real-World Integration

To support miniaturisation and real-world deployment, EMASS is transitioning the ECS-DoT platform to **Ball Grid Array (BGA) packaging**. This transition significantly reduces footprint and enhances performance in space-constrained environments critical for mobile and embedded AI use cases.

Global Software Capability Expansion

Beyond silicon design, EMASS is expanding its embedded systems and edge AI software development operations in Egypt and Singapore, targeting a combined team of 10 to15 engineers to support:

- Device firmware;
- System software integration; and
- Application enablement.

This expansion ensures EMASS will ship with full software stack support, increasing adoption readiness and customer compatibility.

Commercialisation Underway with Current ECS-DoT

The progress with the 16nm ECS-DoT chip is validated by the commercialisation efforts underway with the current 22nm ECS-DoT chip. EMASS is expanding its sales team in the US and Europe and establishing early engagements with OEMs in wearables and drones.

With the current evaluation platform and Software Development Kit (SDK), designers at these OEMs can evaluate the performance of the chip and start application development. Initial feedback points to EMASS being able to secure early design-wins with the current ECS-DoT and take it to volume production.

Outlook

Nanoveu's next-gen edge AI chip, being developed in partnership with CND, is a critical component of the Company's broader strategic roadmap in AI, IoT, and intelligent sensing technologies.

As the Group progresses toward 16nm fabrication by Q4 CY2025, Nanoveu remains focused on leveraging this cutting-edge platform for applications across:

- Autonomous drones
- Smart wearables
- Edge healthcare
- Industrial IoT
- Robotics and defence

Nanoveu will continue to provide shareholders with updates as the EMASS program advances through final design, tape-out, packaging, and integration.

This announcement has been authorised for release by the Board of Directors.

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About Nanoveu Limited

Further details on the Company can be found at https://nanoveu.com/.

EMASS is a pioneering technology company specialising in the design and development of advanced systems-on-chip (SoC) solutions. These SoCs enable ultra-low-power, AI-driven processing for smart devices, IoT applications, and 3D content transformation. With its industry-leading technology, EMASS will enhance Nanoveu's portfolio, empowering a wide range of industries with efficient, scalable AI capabilities, further positioning Nanoveu as a key player in the rapidly growing 3D content, AI and edge computing markets.

EyeFly3D™ is a comprehensive platform solution for delivering glasses-free 3D experiences across a range of devices and industries. At its core, EyeFly3D™ combines advanced screen technology, sophisticated software for content processing, and now, with the integration of EMASS's ultra-low-power SoC, powerful hardware.

Nanoshield™ is a self-disinfecting film that uses a patented polymer of embedded Cuprous nanoparticles to provide antiviral and antimicrobial protection for a range of applications, from mobile covers to industrial surfaces. Applications include *Nanoshield™ Marine*, which prevents the growth of aquatic organisms on submerged surfaces like ship hulls, and *Nanoshield™ Solar*, designed to prevent surface debris on solar panels, thereby maintaining optimal power output.

Forward Looking Statements This announcement contains 'forward-looking information' that is based on the Company's expectations, estimates and projections as of the date on which the statements were made. This forward-looking information includes, among other things, statements with respect to the Company's business strategy, plans, development, objectives, performance, outlook, growth, cash flow, projections, targets and expectations and related expenses. Generally, this forward-looking information can be identified by the use of forward-looking terminology such as 'outlook', 'ambition', 'anticipate', 'project', 'target', 'potential', 'likely', 'believe', 'estimate', 'expect', 'intend', 'may', 'mission', 'would', 'could', 'should', 'scheduled', 'will', 'plan', 'forecast', 'evolve' and similar expressions. Persons reading this announcement are cautioned that such statements are only predictions, and that the Company's actual future results or performance may be materially different. Forward-looking information is subject to known and unknown risks, uncertainties and other factors that may cause the Company's actual results, level of activity, performance, or achievements to be materially different from those expressed or implied by such forward looking information.