**Media Alert**

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**Renesas Electronics Highlights Endpoint Intelligence   
at embedded world 2019**

*Visit Stand 310, Hall 1 to Explore Renesas’ Latest Solution Demonstrations for Smart Factory, Smart Infrastructure, Smart Living and Automotive*

*Special Guest on Renesas Stand: Pascal Wehrlein, Racing Driver**of Mahindra Racing Formula E Team Sponsored by Renesas*

Düsseldorf, February 22, 2019 – Renesas Electronics Corporation (TSE: 6723), a premier supplier of advanced semiconductor solutions, will showcase its embedded solutions for endpoint intelligence in Hall 1, booth #310 at embedded world 2019, which takes place February 26-28 in Nuremberg, Germany. Renesas will demonstrate how the company is taking up the challenge to embed intelligence in every space to make life easier in areas such as smart living, automotive, smart infrastructure and smart factories. Renesas is also proud to present Pascal Wehrlein, racing driver of the Mahindra Racing Formula E Team, as special guest on the VIP stage programme.

**VIP stage programme**Renesas, the official technical partner of the [Mahindra Racing Formula E Team](http://www.mahindraracing.com/), is pleased to welcome the team driver and German national Pascal Wehrlein on the VIP stage programme of the trade fair.

Date/Time: Tuesday, February 26, 1:00 to 1:20 PM  
Location: Hall 3A, Stand 410

After the VIP stage programme, Pascal Wehrlein will be **signing autographs** at the Renesas booth **at 2:00 PM**.

Visitors will also have the chance to join Renesas in a race to try and beat Pascal’s fastest lap time. The **Mahindra Race Simulator** will be a special highlight at the Renesas booth throughout the show. The Simulator leverages Renesas’ collaboration with Mahindra, presenting an exciting chance to participate virtually in Formula E racing. Exciting prizes await the fastest of all participants. Join us for a race!

**Solution Demonstrations – Endpoint intelligence at work**

Embedded developers can explore the broad range of Renesas solutions enabling embedded endpoint intelligence in current and emerging application areas.

* **Energy harvesting solutions with 1,000 times smaller start-up current**Renesas will showcase the latest enhancements to the industry’s first full energy harvesting solution at the microcontroller (MCU) level. Renesas’ [R7F0E](https://www.renesas.com/us/en/solutions/key-technology/sotb/products.html) embedded controller has achieved start-up current levels as low as 5 µA, which is 1/1000th the start-up current of ultra-low power MCUs available today. Using very little start-up current is essential for systems powered by small and inconsistent sources of energy harvested from sources such as radio waves, light, flow, and temperature difference. The R7F0E’s active current and standby current levels -- both 1/10th that of conventional low-power MCUs -- make it an ideal solution for battery-free products. Globally, Renesas is working closely with more than 15 energy harvesting and sensor device providers to expand the adoption of [SOTB](https://www.renesas.com/us/en/solutions/key-technology/sotb.html) technology for battery-free applications ranging from agriculture and environment sensors to wearables and civil infrastructure monitoring.
* **e-AI (embedded artificial intelligence) solutions**Renesas will display its recently launched Failure Detection e-AI Solution for motor-equipped home appliances, featuring the Renesas RX66T 32-bit MCU, which predicts failures before they occur to save costs and resources. The RZ/A2M microprocessor (MPU) demonstrates a hybrid approach to fast e-AI with image pre-processing by DRP and AI Inference by CPU. Click [here](https://www.renesas.com/eu/en/about/press-center/news/2019/news20190121.html) for the latest news release of the RX66T e-AI solution and [here](https://www.renesas.com/us/en/about/press-center/news/2018/news20181004.html) for the news release of the RZ/A2M solution.
* **New 64-bit ARMv8-A based MPUs**

Renesas will highlight its new RZ/G2 Group of high-performance multi-core MPUs featuring Arm® Cortex®-A53 and Cortex®-A57 CPU cores operating up to 1.5 GHz, and enabled by a complete Verified Linux Package with 10-year support on the CIP Linux core. Renesas will demonstrate performance in multiple ways with UHD 4K video application and a video phone design. Click [here](https://www.renesas.com/eu/en/about/press-center/news/2019/news20190221.html) for the news release of the new RZ/G2 Group of MPUs.

* **PLC solutions**Renesas will illustrate how to implement KNX networks and take advantage of the flexibility and efficiency offered by modern G3-PLC™ (powerline communication) technology while eliminating the need for new network cable deployment for smart buildings. Click [here](https://www.renesas.com/eu/en/about/press-center/news/2019/news20190214.html) for the latest news release of this solution.
* **Security solutions**Renesas extends its high-integration Renesas Synergy™ S5 MCU series, introducing a new entry-level MCU Group featuring a 120 MHz Arm® Cortex®-M4 core and advanced security, as well as general-purpose features that simplify the design of cost-sensitive, low-power Internet of Things (IoT) endpoint devices. Renesas will also show its RX130 security demo with Intrinsic ID technology, which is implemented on Renesas’ low-end RX130 devices and provides customers with a security solution based on a reliable root of trust. Click [here](https://www.renesas.com/eu/en/about/press-center/news/2019/news20190220.html) for the latest news release of the S5 MCU series.
* **Low-power MCU solutions**Renesas will demonstrate its Quick Solutions boards containing RL78 MCUs as well as analog and power devices. These assist product development by providing downloadable documents including user manuals, sample software source code, circuit diagrams, PCBs and BOMs. One of the applications on the stand will be a handy vacuum cleaner reference design, which contains the RL78/G12F MCU and ISL9420 battery management IC. These products help create a sensorless 3-phase BLDC motor control solution for high-speed suction with battery-driven, cordless operation.
* **Analog & Power solutions**Renesaswill highlight the combined strengths of its MCU, analog and power expertise with the Pet Activity Monitor reference design demo. It features the Renesas Synergy S3A3 MCU, ISL9230 single-cell Li-ion battery charger, ISL9120 buck-boost regulator, and ISL28133 op amp. The reference design PCB is housed inside a plastic case, illustrating low power consumption, low continuous active current and quick design capabilities for a wearable that fits onto a collar to monitor the pet’s activity and sounds throughout the day. This will be a special eye-catcher at the booth. Watch out for the dogs!
* **Automotive solutions**Renesas will reveal several automotive demos that support intelligent endpoints in and around the car. A new MCU family based on 28nm MONOS flash technology will be presented, as well as Field Over-The-Air (OTA) programming based on double bank flash configuration and read while write (RWW) technology to allow fail-safe updates during operation in the field. Renesas will also showcase its connected car, integrated image signal processing, camera object detection, stereo vision and dense optical flow demos. Another highlight will be the Ethernet & Connected Gateway for Automotive featuring Renesas’ in-vehicle network (IVN) demonstrator for Time Sensitive Networking with seamless redundancy.

**Join the MCU Car Rally**

Renesas will also be holding its popular European MCU Car Rally for the fifth year running as premium sponsor of the embedded world students’ day. Approximately 200 students from 32 European Renesas Partner Universities have assembled model racing cars with Renesas components. The university teams will race them in the rally, which is being held in the main entrance area (Mitte) on February 28, with qualification rounds starting at 10:40 am CET. The final eight teams will go head to head at 14:45 followed by the award ceremony at 15:45 CET.

**About Renesas Electronics Corporation**

Renesas Electronics Corporation ([TSE: 6723](http://www.jpx.co.jp/english/)) delivers trusted embedded design innovation with complete semiconductor solutions that enable billions of connected, intelligent devices to enhance the way people work and live. A [global](https://www.renesas.com/en-hq/about/company/profile/global.html) leader in microcontrollers, analog, power, and SoC products, Renesas provides comprehensive solutions for a broad range of automotive, industrial, home electronics, office automation, and information communication technology applications that help shape a limitless future. Learn more at [renesas.com](http://www.renesas.com/).

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