

Exhibition sectors

electronica India is the only event of its kind to showcase the entire range of electronic components—from technologies and components to specific application fields.

Semiconductors

Since the early 1970s, the increase in the capacity of microprocessors has followed Moore's law; this originally suggested that the number of components that can be fitted onto a chip doubles every year. With present technology, it is actually every two years, and as such Moore later changed the period to two years.

The advent of low-cost computers on integrated circuits has transformed modern society. Integrated circuits are used in virtually every electronic device today and have revolutionized the world of electronics. Eager to see the latest components? Visit electronica India!

Embedded systems

Thousands of items that were traditionally not computer-related now feature microprocessors. These include large and small household appliances, cars (and their accessory equipment), car keys, tools, test instruments and many more devices that we all use in our daily lives.

Increasingly stringent pollution control standards effectively require automobile manufacturers to use microprocessor engine management systems, to allow optimal control of emissions over widely varying operating conditions of an automobile. Non-programmable controls would require complex, bulky, or costly implementation to achieve the results possible with a microprocessor. The result: embedded software as a control program for the microprocessor tailored to different needs of a product line.

Many more microprocessors are part of embedded systems, providing digital control over a myriad of objects from appliances to automobiles to cellular phones and industrial process control. electronica India will give you insights into the latest developments.

Displays

This technology influences our daily lives: smartphones, TVs, driver assistance—all of these applications feature a diverse range of displays. Which one fits best for your specific development order—come and see electronica India to find out!

Micro- and nanosystems and sensor technology

SAVE THE DATE

**electronica India | International Trade Fair
for Electronic Components, Systems and
Applications**

Date: Sep 14 - 16, 2017

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Sensors are used in everyday objects. With advances in micromachinery and easy-to-use microcontroller platforms, the uses of sensors have expanded beyond the more traditional fields of temperature, pressure or flow measurement, for example into MARG sensors. Moreover, analog sensors such as potentiometers and force-sensing resistors are still widely used. Applications include manufacturing and machinery, airplanes and aerospace, cars, medicine, robotics and many more.

MEMS is an innovative technology that, in one embodiment, generates continued, sustained improvements, for example in, the functionality of small microphones, small cameras, and small electrical signal filters for wireless communication. In its other disruptive, embodiment, MEMS technology creates entirely new kinds of products, such as inexpensive, multi-axis inertial motion sensors useful for smartphone-based navigation, and Digital Micromirror Devices (DMD), arrays of MEMS micromirrors used for high-speed, efficient, and reliable spatial light modulation in industrial, medical, telecom, security and other applications.

Test and measurement

The test and measurement industry centers on the production of tools used to analyze, validate, and verify measurements of electronic and mechanical systems. Due to the increasing need for greater accuracy and higher-definition measurements, the tools involved in this industry are constantly developing to accommodate technological advancements in the industries they cater to. The test and measurement industry creates both general use and highly specialized tools and caters primarily to high-tech industrial, automotive, communications, and medical electronics industries.

Because of the increasing complexity of measurements needed, the industry has more recently begun a rapid trend towards software packages. These packages work with test and measurement devices to codify, validate, and organize the data gathered by them. Software packages are most commonly provided to accompany the devices, which take the most complicated measurements and provide a large quantity of data, which needs to be organized. See the latest development in this field at [electronica India](#).

Electronic design (ED/EDA)

As a category of software tools for designing electronic systems, electronic design automation describes tools working together in a design flow, used to design and analyze entire semiconductor chips.

EDA for electronics has rapidly increased in importance with the continuous scaling of semiconductor technology. Some users are foundry operators, who operate the semiconductor fabrication facilities, or “fabs”, and design-service companies who use EDA software to evaluate an incoming design for manufacturing readiness. EDA tools are also used for programming design functionality into FPGAs.

Passive components

Passive components can be found in all electronic assemblies, where they perform a variety of important tasks. Without these types of components and their use, solving the tasks performed by circuits would be unthinkable. That is why you simply cannot miss [electronica India](#).

Electromechanics and system periphery

Plug connectors have a permanent place in industrial production. And for good reason: Plug connectors allow the user to disconnect an electrical connection and then restore the connection again. Unlike other connection techniques, there is no danger of wires being connected incorrectly or of an entire electrical connection being defective. Production classifications and electrical requirements such as current load rating, dielectric strength, overvoltage category, ambient temperature and contamination type are some of the basic specifications that users must take into account. There are hundreds of types of connectors to choose from in the electronics industry. [electronica India](#) is the platform that can give you a broad overview of the market.

Power supplies

The variety of transformers, power supplies (DC output), power supplies (AC output), relevant accessories and batteries is huge. Use [electronica India](#) as your platform for the entire electronics industry.

PCBs, other circuit carriers

Whether they are single sided, double sided or multi-layer, PCBs are used in all but the simplest electronic products. Nowadays there is a wide range of specialized companies in the electronic manufacturing services field, delivering not only the PCB as a component, but also running design centers helping to create individual boards corresponding with your needs.

EMS (Electronic manufacturing services)

Until recently, providing electronic manufacturing services predominantly meant being a production-services provider that specialized in the mass production of electronic assemblies. Now these suppliers have expanded their expertise along the entire supply chain. Today it is all about securing one's ability to deliver by incorporating customers and suppliers into the process.

Assemblies and subsystems

Increasing automation has brought about dramatic changes in drive technology. [electronica India](#) showcases the latest solutions in the sector for assemblies and subsystems. This sector includes assemblies for control applications as well as servo-technology.

Automotive

The automotive industry is looking for new growth opportunities by improving vehicle performance. Increasingly strict legal regulations are one reason for this trend. Add to that a leap in technology: New lightweight materials, miniaturization as well as digitalization and networking are making automotive electronics a rapidly growing market. The Automotive exhibition sector features companies that are primarily suppliers in the automotive industry. Their exhibits include solutions, products and services that are related to automotive electronics.

Wireless

Whether it comes to the Internet of Things, location-based services or wireless payment: Solutions that are suitable for wireless communication are presented in the Wireless sector. This sector also features modules with low storage

requirements such as high-frequency transceivers for use in wireless sensors or MEMS.

The most important topics are cellular systems, non-cellular systems and wireless applications.
