

## The Exhibition

The Exhibition on **New Actuator Systems and Applications** will present components, system approaches and applications of smart actuators and low-power electromagnetic drives based on conventional (electromagnetic) and innovative working principles (new actuators), and associated subjects. The range of topics also includes measurement techniques, control concepts and circuits, driver components and units, system integration, layout and simulation tools etc.

Within the exhibition area, we will again have application oriented presentations on a product level, besides the detailed conference program. This Exhibition Forum provides additional information about the exhibition topics on the product level especially to visitors of the exhibition. Exhibitors and other parties are therefore invited to directly respond with their contributions and presentations to potential customer demand. Exhibition conditions and more detailed information on the Exhibition Forum may be obtained from the organizer or can be downloaded from the event homepage ([www.actuator.de](http://www.actuator.de)).

## Event Language

The official conference language is English; there will be no simultaneous translation.

## Contact

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## Save the Date



# ACTUATOR 22

International Conference and Exhibition on  
New Actuator Systems and Applications

**Congress Center Rosengarten  
Mannheim, Germany  
June 27 – 30, 2022**

[www.actuator.de](http://www.actuator.de)

### Organized by:

Society of Microelectronics, Microsystems and  
Precision Engineering (VDE/VDI GMM)

## Announcement

**ACTUATOR 2022**, the **18th International Conference** and the **12th International Exhibition on New Actuator Systems and Applications**, will take place in Mannheim, Germany, on June 27–30, 2022.

ACTUATOR is a major biennial event bringing together leading experts, suppliers and users in the field of new actuators and low-power electromagnetic drives from all over the world. The invitation to attend ACTUATOR is aimed at executives and researchers from industrial companies as well as institutes, colleges and universities who are interested in the transfer of R&D results into innovative actuator applications and drive technologies.

## The Conference

With about 400 participants from more than 20 countries, the **International Conference on New Actuator Systems and Applications** has been the most important place to meet leading international specialists, to share their expertise and to start business co-operations in the field of new actuator technologies.

ACTUATOR has been the key forum for actuators based on smart materials and micro technologies as well as their applications in all areas of engineering for thirty years now. Over the years, a huge variety of excellent ideas and results have been reported. A lot of them have been raised from vision to mass product. Among the success stories you will find quite a number of established applications of new actuators, in particular their well-known use in fuel injection, adaptive shock absorbers, nanopositioning, precision engineering like camera lenses and other applications of miniaturized drives.

In this way, ACTUATOR has launched the realization of new product generations with outstanding compactness and high performance properties which so far have not been achieved in conventional technologies. A small wonder that based on this ignition, resulting in gaining access to new markets.

## Conference Focus

### Technological Topics

- Electromagnetic actuators
- Piezoelectric actuators / piezoelectric motors
- Thermal / magnetic shape memory actuators
- Magnetostrictive actuators
- Magnetoelectric actuators
- Micro / nano actuators
- Actuators based on ER / MR fluids
- Polymer actuators
- Electroactive polymer devices
- Cooperative / multistable actuators
- Emerging principles / tensegrity / robogami
- Actuator control and electronics
- Pneumatics / hydraulics
- Photonic actuators
- Bio actuators

### Application-oriented Topics

- Active vibration / active noise control
- Aerospace / aviation
- Automation
- Robotics / micro robotics / soft robotics
- Automotive
- Haptic / tactile devices
- Medical devices / medical engineering
- Microfluidic handling
- Micro / nano manipulation and positioning
- Microscopy / scanning probe microscopy
- Information technology
- Manufacturing / micro assembly
- Process engineering
- Biotechnology
- Optics / laser
- Precision engineering