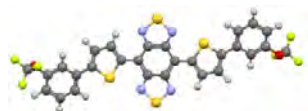


# Development of Soft Sensing Devices Using Organic Electronics

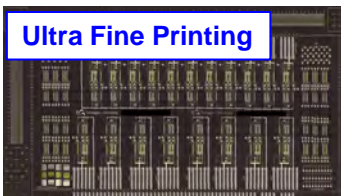
**Research Professor Daisuke Kumaki**



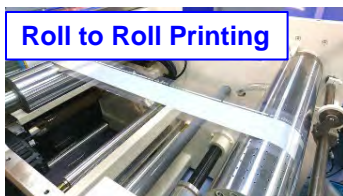
**Organic Semiconductor**



**Silver Nanoparticle Ink**



**Ultra Fine Printing**



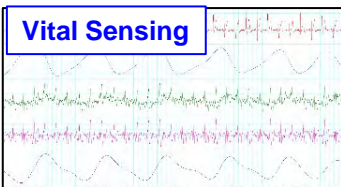
**Roll to Roll Printing**



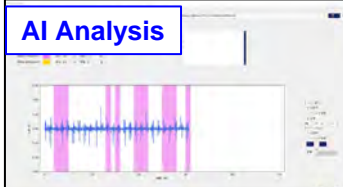
**FHE Device**



**Sheet Sensor**



**Vital Sensing**



**AI Analysis**



**Verification Test**



**Medical Application**

**Comprehensive research and development  
from materials to services (social implementation)**

## Content:

In the IoT society, flexible and stretchable soft sensors are expected to be used in a variety of fields, including healthcare and robotics, as key devices that connect people and information. Environmentally friendly printing processes is expected to be a low-carbon manufacturing technology helping a sustainable society.

Our research group has technologies such as design and development for sensor devices and integrated circuits, fabrication methods using printing processes, signal processing and analysis technology for sensing data, and integration of these technologies into product-based prototyping.

## Appealing point:

We are conducting verification tests in collaboration with the Faculty of Medicine and the Faculty of Education, Art and Science in Yamagata University. Through joint research with companies and medical institutions, we are developing soft sensing devices for medical applications.

Research Field: Organic Electronics  
Specialty: Organic electronic materials,  
Printing process,  
Soft sensing devices

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