Theme : Camera Technology

- Sub Theme : Next Generation Image Sensors & Cameras

Thanks for the digital image sensors and cameras, we easily take high - quality pictures everyday. Digital technologies allow huge cameras to be inside various daily used consumer electronic devices such as smartphones and TV. Nowadays imaging systems are being miniaturized further, however, their optical performances are easy to be sacrificed. In order to solving the issue, new concept of imaging architecture or highly improved imaging sensor and optical components are strongly required.

We are aiming to find new imaging technologies including optical H/W and sensing/imaging architecture in various form. Through innovative ideas with unprecedented technologies we would like to overcome limitation of present sensing performance and capabilities.

- Highly sensitive, even single-photon sensitive imaging sensor/system
- Nano technologies for overcoming limitations of present optical component such as physical dimension and optical diffraction.
  (Ex. Metamaterial / plasmonics/ photonic crystal)
- New camera architectures and functions e.g. bio-inspired or lensless imaging architecture for thinner smartphones.

※ The topics are not limited to the above examples and the participants are encouraged to propose original idea.

※ Funding : Up to USD $150,000 per year