

# M AIMR Advanced Institute Magazine for Materials Research

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04  
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[Feature articles]

## Small MEMS Presents a Big Future

AIMR principle investigator,  
Director of  $\mu$ SIC

Masayoshi Esashi

[AIMR in the world]

## Science Talk Live 2013 in Sendai a retrospective in pictures

[A Friendly Discussion]

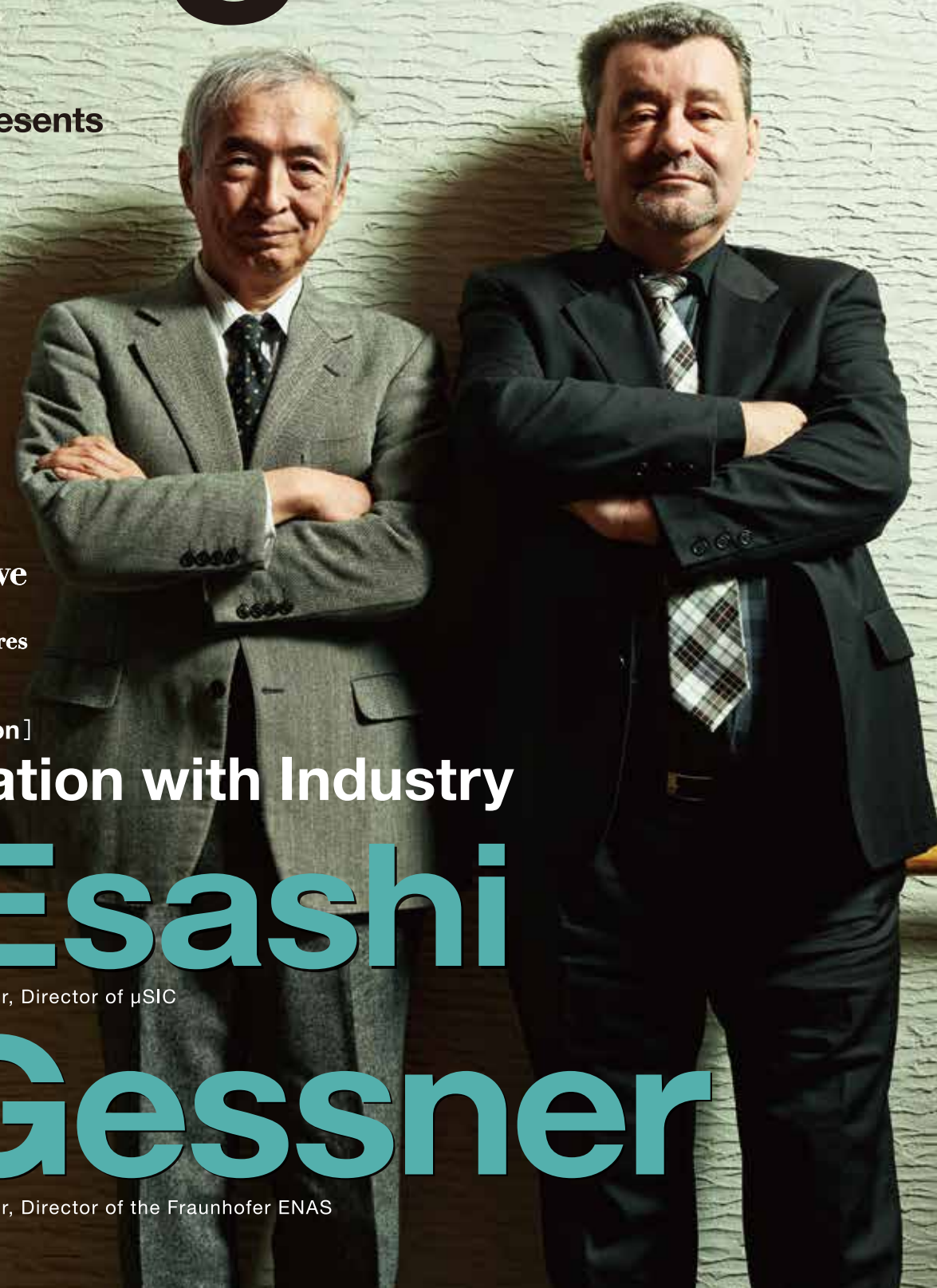
## Collaboration with Industry

# M. Esashi

AIMR principle investigator, Director of  $\mu$ SIC

# T. Gessner

AIMR principle investigator, Director of the Fraunhofer ENAS











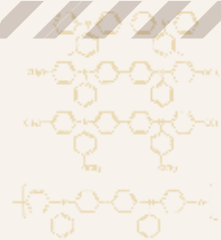












# M A E R I A L S

Today, the term 'electronic devices' has permeated throughout our daily lives and we use it extremely frequently within our conversations. Electronic devices is mainly used to indicate individual electronic parts such as transistors and light emitting diodes that are used in mobile phones and computers, but at times it is used to describe an electronic device that includes electronic equipment like a computer.

Electronic devices are used to store vast quantities of information, to calculate at high speeds using programs, and to convert information into radio waves that can be transmitted instantaneously. Electronic devices benefit us in many areas: for example, today, information that has been recorded in a book in the past can be stored compactly, such as on a hard disk or flash memory; the accuracy of weather forecasts has increased thanks to calculations by super computers; messages that would formerly be sent as letters are exchanged instantaneously and across the world by email; and wireless mobile phones have become the mainstream device for making telephone calls. If we imagine high school students who must decide on a university department and course in order to follow their dream of researching and developing these sorts of devices that support modern-day society, which should they choose? Without question, courses provided by departments of engineering, such as in electric and electronic engineering or telecommunication engineering, provide the foundation for education and research in this field. But because this article is about materials science, of course here I want to write about the direct connection between materials science and electronic devices.

For example, inte

