

## Industrial Session Speaker

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Presentation Title	Multiple air core anti-resonant fiber

### Biography

Seongwoo Yoo is an assistant professor at School of Electrical and Electronic Engineering in Nanyang Technological University (NTU), Singapore. He received his PhD from Gwangju Institute of Science and Technology (GIST), Korea for his study on specialty fibre design and fabrication. He joined the Optoelectronic Research Centre (ORC) at University of Southampton, UK, as a post-doctoral research fellow in 2005. Since then, his research has been centred on specialty fibre development for high power fibre lase applications. Since joining NTU, his research efforts have been focused on rare-earth doped fibres, high nonlinearity fibres and micro-structured fibres.

### 200 words abstract

Recent progress of hollow-core anti-resonant fiber increases anticipation of emerging of anti-resonant fiber based components, evolved from a monotonous transmission fiber. We investigate this opportunity and report a multiple air core anti-resonant fiber and its potential applications for high power ultrafast beam coupler, and in-fiber interferometer. Thanks to the air cores, the anti-resonant fiber coupler promises material unrestricted performances including broad transmission window, low dispersion, and low nonlinearity. In addition, the air core interferometer offers a new platform for robust ultra sensitive interferometric sensors. This talk will present our recent efforts on the multi-core anti-resonant fibers.