





Tokyo, Japan

## The 22nd Microoptics Conference

This is to certify that the Program Committee has presented

The MOC Student Award

to

## Hameeda Ragab Ibrahim

for the excellent paper entitled "Design of 100Gbps Double Transverse Coupled Cavity VCSELs".

In witness whereof this twenty-second day of November 2017

岩本敏山下真司

Satoshi Iwamoto Conference Co-chair

Shinji Yamashita Conference Co-chair

持得場。Okihiro Sugihara Program Co-chair



Hiroshi Takahashi Program Co-chair