

Final Project Report (Executive Summary) Form

I. Title of Proposed Project:

Research and development on short distance communication and imaging for applications in ASEAN region

II. Project Leader:

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III. Project Members:

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IV. Total Amount (US\$): USD 87,000

- First year: USD 30,000
- Second year: USD 30,000
- Third year: 27,000 USD

V. Duration (6-36 Months):

Start date: April 1, 2016

Duration: 36 months

VI. Executive Summary

- ❑ Short distance communication and imaging will be the key technologies for near future communications networks and applications.
- ❑ The research project has provided basic guidelines for
 - Design of photonic integrated devices
 - Millimeter-wave propagation, channelization, and its availability
 - Device evaluation technique
 - Feasibility of short-distance communication by both optical and radio technology in access networks numerically and experimentally
 - Feasibility of short-distance imaging by optical and radio, and their combination techniques
 - New hardware implementations for short-distance communication and imaging based on radio-over-fiber and its related technologies.
- ❑ The collaboration among ASEAN institutes including universities, manufactures, operators and government
 - Increasing the number of research scientists, engineers in the field of the convergence of radio and optical technologies for realization of 5G networks.
 - Enhancing civil security and safety by imaging as well as to increase user experiences in future networks.
 - Harmonizing the fundamental research based on the seeds for innovative technologies and strong demands from the operators, and finally, the institutes and governments can organize for international standardizations by these outputs.