

Optical computing

2 units (selection)

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Target) To understand analog optical computing. To understand digital optical computing. To understand optoelectronic computing.

Outline) We study fundamental technologies of architectures, implementation, and packaging in analog and digital optical processing, and prototype system developed with these technologies. We also study recent technologies in related photonics, electronics, and other technologies.

Style) Lecture

Goal)

1. To understand optical computing
2. To create new information photonics

Schedule)

1. Fundamentals of optical computing (1)
2. Fundamentals of optical computing (2)
3. Fundamentals of optical computing (3)
4. Light source and detector in optical computing
5. Optical modulator in optical computing
6. Analog optical computing (1)
7. Analog optical computing (2)
8. Digital optical computing (1)
9. Digital optical computing (2)
10. Optica memory
11. Optica communication
12. Recent optical computing technology (1)
13. Recent optical computing technology (3)
14. Recent optical computing technology (3)
15. Recent optical computing technology (4)

Evaluation Criteria) Evaluated with reports

Contents) <http://cms.db.tokushima-u.ac.jp/cgi-bin/toURL?EID=216825>

Student) Able to be taken by only specified class(es)

Note) 授業を受ける際には、2時間の授業時間毎に2時間の予習と2時間の復習をしたうえで授業を受けることが、授業の理解と単位取得のために必要である。