Elevate your expertise with a Short Course

Technical Conference: 24 - 28 March 2024
Exhibition: 26 - 28 March 2024
Short Courses: 24 - 25 March 2024
San Diego Convention Center
San Diego, California, USA

OFCCConference.org
Explore new possibilities with OFC Short Courses — an ideal training venue for you and your colleagues to delve into the latest products, state-of-the-art technology and crucial insights driving optical communications.

Immerse yourself in one or more of the 51 Short Courses being offered in dynamic half-day lectures or hands-on formats. Renowned industry experts will guide you through diverse subject areas, offering all skill levels from beginner to advanced the chance to learn from some of the brightest minds in our field. Benefit from an intimate learning environment with smaller class sizes, ensuring a more personalized and enriching educational experience.

Discover the perfect course that’s right for you, and register today.

Registration*

Registration gives you access to the selected Short Course and accompanying Short Course notes. To enhance your visit, registering for a Short Course also grants you access to the Plenary Session, Workshops and the Exhibition and its expansive Show Floor Programming.

<table>
<thead>
<tr>
<th>Course Type</th>
<th>Before or On 23 February</th>
<th>After 23 February</th>
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<tbody>
<tr>
<td>Half-Day Lecture – Member</td>
<td>USD 292</td>
<td>USD 355</td>
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<tr>
<td>Half-Day Hands-on – Member</td>
<td>USD 355</td>
<td>USD 408</td>
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<td>Half-Day Lecture – Non-Member</td>
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<td>Half-Day Hands-on – Non-Member</td>
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<tr>
<td>Half-Day Hands-on – Member (SC432 only**)</td>
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<td>Half-Day Hands-on – Non-Member (SC432 only**)</td>
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*Short Courses are available onsite and in-person only.

**Attendees will design a PIC that will be fabricated and characterized in SC432.
Schedule

Sunday, 24 March 2024

08:30 - 12:30

SC105 Modulation Formats and Receiver Concepts for Optical Transmission Systems

INSTRUCTORS
Peter Winzer, Nubis Communications, USA
Vivian Chen, Nokia Bell Labs, USA

COURSE LEVEL
Advanced Beginner

TOPIC CATEGORY
S4

SC203 400, 800Gb/s and Beyond Optical Communications Systems: Design and Design Trade-offs

INSTRUCTORS
Ezra Ip, NEC Labs, USA
Chongjin Xie, Alibaba Group, USA

COURSE LEVEL
Advanced Beginner

TOPIC CATEGORY
S4

SC208 Optical Fiber Design for Telecommunications and Specialty Applications

INSTRUCTOR
David J. DiGiovanni, OFS Labs, USA

COURSE LEVEL
Advanced Beginner

TOPIC CATEGORY
D4, D5

SC216 An Introduction to Optical Network Design and Planning

INSTRUCTOR
George Rouskas, North Carolina State University, USA

COURSE LEVEL
Beginner

TOPIC CATEGORY
N1, N3

SC328 Standards for High-Speed Optical Networking

INSTRUCTOR
Tom Huber, Nokia, USA

COURSE LEVEL
Intermediate

TOPIC CATEGORY
N1, N3, S1, S4

SC395 Modeling and Simulation of Optical Transmitter and Receiver Components for Coherent Communications

INSTRUCTORS
Harald Rohde, Nokia, Germany
Howard Wang, Nokia, USA

COURSE LEVEL
Advanced Beginner and Intermediate

TOPIC CATEGORY
S4

SC432 Hands-on: Silicon Photonics Component Design and Fabrication

INSTRUCTOR
Lukas Chrostowski, University of British Columbia, Canada

COURSE LEVEL
Intermediate

TOPIC CATEGORY
D2, D3

Review the course descriptions for a deeper understanding of what each course offers.

OFCConference.org/ShortCourses

SHORT COURSE TOPIC CATEGORIES

Devices, Components and Fibers
D1 Advanced Prototyping, Packaging and Integration
D2 Passive Components
D3 Active Components
D4 Fibers and Propagation Physics
D5 Fiber Devices, Fiber Lasers and Amplifiers and Nonlinear Waveguides

Subsystems and Systems
S1 Datacom Subsystems and Systems
S2 Subsystems for Transmission
S3 Transmission Systems
S4 Optical Processing, Microwave Photonics and Fiber-Sensing
S5 Free-Space (FSO), Ranging (LiDAR) and Radio-over-Fiber (RoF)

Networks and Services
N1 Advances in Developments of Networks and Services
N2 Optical Networking for Data Center and Computing Applications
N3 Architectures and Software-Defined Control for Metro and Core Networks
N4 Optical Access Networks for Fixed and Mobile Services
N5 Market Watch, Network Operator Summit and Data Center Summit
**Sunday, 24 March 2024**

**08:30 - 12:30 (cont’d)**

**SC443** Optical Amplifiers: From Fundamental Principles to Technology Trends  
**INSTRUCTORS** Peter Andrekson, Chalmers University of Technology, Sweden  
Michael Vasilyev, University of Texas, Arlington, USA  
**COURSE LEVEL** Beginner and Advanced Beginner  
**TOPIC CATEGORY** S2

**SC461** High-capacity Data Center Interconnects for Cloud-scale Networking  
**INSTRUCTORS** Dirk van den Borne, Juniper Networks, Germany  
Sander L. Jansen, ADVA Optical Networking, Germany  
Mark Filer, Google, USA  
**COURSE LEVEL** Beginner  
**TOPIC CATEGORY** N1, S1

**SC463** Optical Transport SDN: Architectures, Applications, and Actual Implementations  
**INSTRUCTORS** Achim Autenrieth, ADVA Optical Networking SE, Germany  
Jörg-Peter Elbers, ADVA Optical Networking SE, Germany  
**COURSE LEVEL** Intermediate  
**TOPIC CATEGORY** N1, N3

**SC469** Hands-on: Laboratory Automation and Control Using Python  
**INSTRUCTORS** Jochen Schröder, Chalmers University of Technology, Sweden  
Binbin Guan, Microsoft, USA  
Roland Ryf, Nokia Bell Labs, USA  
**COURSE LEVEL** Beginner  
**TOPIC CATEGORY** S4, S5

**13:00 - 16:00**

**SC470** Secure Optical Communications  
**INSTRUCTORS** Andrew Shields, Toshiba Research Labs, UK  
Helmut Grießer, ADVA Network Security, Germany  
**COURSE LEVEL** Beginner and Advanced Beginner  
**TOPIC CATEGORY** S5

**SC408** Space Division Multiplexing for Optical Communication Systems and Networks  
**INSTRUCTOR** Roland Ryf, Nokia Bell Labs, USA  
**COURSE LEVEL** Advanced Beginner  
**TOPIC CATEGORY** S5

**SC512** Modern Subsea Cable Systems  
**INSTRUCTOR** Mei Du, Tata Communications, USA  
**COURSE LEVEL** Advanced Beginner  
**TOPIC CATEGORY** S3

**13:00 - 17:00**

**SC177** High-speed Semiconductor Lasers and Modulators  
**INSTRUCTOR** John Bowers, University of California, Santa Barbara, USA  
**COURSE LEVEL** Intermediate  
**TOPIC CATEGORY** D3

**SC359** Networking for Data Centers and Machine Learning  
**INSTRUCTORS** Hong Liu, Google, USA  
Ryohei Urata, Google, USA  
**COURSE LEVEL** Beginner  
**TOPIC CATEGORY** D1, N2

**SC459** Multimode Photonic Devices, Characterization and Applications  
**INSTRUCTOR** Nicolas Fontaine, Nokia Bell Labs, USA  
**COURSE LEVEL** Advanced Beginner  
**TOPIC CATEGORY** D5

**SC514** FEC Techniques for Optical Communications  
**INSTRUCTOR** Georg Böcherer, Huawei Technologies, Germany  
**COURSE LEVEL** Advanced Beginner and Intermediate  
**TOPIC CATEGORY** S2

**13:30 - 17:30**

**SC267** Silicon Microphotonics: Technology Elements and the Roadmap to Implementation  
**INSTRUCTOR** Lionel Kimerling, MIT, USA  
**COURSE LEVEL** Beginner  
**TOPIC CATEGORY** D2, D3
Schedule

Monday, 25 March 2024

09:00 - 12:00
SC465 Transmission Fiber and Cables
INSTRUCTOR
John Hedgpeth, Corning Optical Communications, USA
COURSE LEVEL
Advanced Beginner
TOPIC CATEGORY
D4

08:30 - 12:30
SC160 Microwave Photonics
INSTRUCTOR
Jose Capmany, Polytechnic University of Valencia, Spain
COURSE LEVEL
Advanced Beginner
TOPIC CATEGORY
S2

SC393 Digital Signal Processing for Coherent Optical Transceivers
INSTRUCTOR
Chris Fludger, Infinera, Germany
COURSE LEVEL
Intermediate
TOPIC CATEGORY
S4

SC344 Emerging Optical Communication Technologies for F5G Evolution
INSTRUCTOR
Dr. Xiang Liu, Huawei Technologies, China
COURSE LEVEL
Intermediate
TOPIC CATEGORY
N4

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N5 Market Watch, Network Operator Summit and Data Center Summit
### Monday, 25 March 2024

**08:30 - 12:30 (cont’d)**

**SC452** FPGA Prototyping for Optical Subsystems  
**INSTRUCTORS** Noriaki Kaneda, nEye systems Inc, USA  
Robert Elschner, Fraunhofer HHI, Germany  
**COURSE LEVEL** Advanced Beginner  
**TOPIC CATEGORY** S4

**SC453A** Hands-on: Fiber Optic Handling, Measurements and Component Testing  
**INSTRUCTORS** Steve Baldo, Seikoh Giken, USA  
Chris Heisler, Santec California Corporation, USA  
Jérome Allaigre, Data-Pixel, France  
Julien Maille, Data-Pixel, France  
**COURSE LEVEL** Beginner  
**TOPIC CATEGORY** D4, D5

**SC454** Hands-on: Silicon Photonics Design — Circuits  
**INSTRUCTOR** Wim Bogaerts, University of Ghent, Belgium  
**COURSE LEVEL** Beginner  
**TOPIC CATEGORY** D2, D3

**SC473** Photonic Switching Systems  
**INSTRUCTORS** David Neilson, Nokia Bell Labs, USA  
Benjamin Lee, NVIDIA, USA  
**COURSE LEVEL** Advanced Beginner  
**TOPIC CATEGORY** D2

**SC483** Machine Learning in Optical Networks  
**INSTRUCTORS** Massimo Tornatore, Politecnico di Milano, Italy  
Darko Zibar, DTU FOTONIK, Denmark  
**COURSE LEVEL** Beginner  
**TOPIC CATEGORY** N3, N4, S4

**SC487** Hands-On: Laboratory Automation and Control Using Python  
**INSTRUCTORS** Jochen Schröder, Chalmers University of Technology, Sweden  
Nicolas Fontaine, Nokia Bell Labs, USA  
Binbin Guan, Microsoft, USA  
**COURSE LEVEL** Advanced  
**TOPIC CATEGORY** S4, S5

**SC513** Data Center Short Links — Link Design, Modeling, Test and Measurements  
**INSTRUCTORS** Petar Pepeljugoski, IBM Research, USA  
Greg D. Le Chéminant, Keysight Technologies, USA  
**COURSE LEVEL** Advanced Beginner  
**TOPIC CATEGORY** S1

**SC525** Photonic and Electronic Packaging — Materials, Processes, Equipment and Reliability NEW  
**INSTRUCTOR** Peter O’Brien, Tyndall National Institute, Ireland  
**COURSE LEVEL** Advanced Beginner  
**TOPIC CATEGORY** D1

**SC527** Optical Satellite Networks NEW  
**INSTRUCTOR** Vincent Chan, MIT, USA  
**COURSE LEVEL** Advanced Beginner  
**TOPIC CATEGORY** N1, N3, S5

**13:30 - 16:30**

**SC114** Technologies and Applications for Passive Optical Networks (PONs)  
**INSTRUCTOR** Frank Effenberger, Futurewei, USA  
**COURSE LEVEL** Beginner  
**TOPIC CATEGORY** N4, S4

**SC217** Applications of Radio-over-Fiber Technologies Including Future 5G Networks  
**INSTRUCTOR** Dalma Novak, Octane Wireless, USA  
**COURSE LEVEL** Advanced Beginner  
**TOPIC CATEGORY** S3

**SC261** ROADM Technologies and Network Applications  
**INSTRUCTOR** Thomas Strasser, Molex, USA  
**COURSE LEVEL** Advanced Beginner  
**TOPIC CATEGORY** D1, D2, N3

**SC447** The Life Cycle of an Optical Network: From Planning to Decommissioning  
**INSTRUCTOR** Andrew Lord, BT Labs, BT, UK  
**COURSE LEVEL** Advanced Beginner and Intermediate  
**TOPIC CATEGORY** N1

**SC485** Advanced Fiber Access Networks  
**INSTRUCTORS** Jun Shan Wey, Verizon, USA  
Rajesh Yadav, Verizon, USA  
**COURSE LEVEL** Intermediate  
**TOPIC CATEGORY** N4

**SC526** Optical Wireless Technologies, Systems and Applications NEW  
**INSTRUCTOR** Harald Haas, University of Strathclyde, Scotland  
**COURSE LEVEL** Advanced Beginner  
**TOPIC CATEGORY** N4, S5

**SC527** Optical Satellite Networks NEW  
**INSTRUCTOR** Peter O’Brien, Tyndall National Institute, Ireland  
**COURSE LEVEL** Advanced Beginner  
**TOPIC CATEGORY** D1
Monday, 25 March 2024

13:30 – 16:30 (cont’d)

SC528 **Hands-on:** Fiber Optic OFCnet Course: Practical Fiber Optic Network Testing in a Realistic Network Environment

**INSTRUCTOR**
Gwenn Amice, EXFO, USA

**COURSE LEVEL**
View Course Description

**TOPIC CATEGORY**
N1, N5

13:30 – 17:30

SC325 Highly Integrated Monolithic Photonic Integrated Circuits

**INSTRUCTOR**
Chris Doerr, Doerr Consulting, LLC, USA

**COURSE LEVEL**
Advanced Beginner

**TOPIC CATEGORY**
D2, D3

SC327 Fiber Transmission and Design of Long-haul Communication Systems

**INSTRUCTOR**
René-Jean Essiambre, Nokia Bell Labs, USA

**COURSE LEVEL**
Advanced Beginner

**TOPIC CATEGORY**
S5

SC347 Reliability and Qualification of Fiber Optic Components, Modules and Equipment

**INSTRUCTOR**
David R. Maack, David Maack Consulting, USA

**COURSE LEVEL**
Beginner

**TOPIC CATEGORY**
D1, D4

SC357 Circuits and Equalization Methods for Coherent and Direct Detection Optical Links

**INSTRUCTORS**
Alexander Rylyakov, Nokia, USA
Sudip Shekhar, University of British Columbia, Canada

**COURSE LEVEL**
Advanced Beginner

**TOPIC CATEGORY**
D1, D3, S1, S4

SC384 Background Concepts of Optical Communication Systems

**INSTRUCTOR**
Alan Willner, University of Southern California, USA

**COURSE LEVEL**
Beginner

**TOPIC CATEGORY**
S4, S5

SC431 Photonic Technologies in the Data Center

**INSTRUCTOR**
Clint Schow, University of California, USA

**COURSE LEVEL**
Advanced Beginner

**TOPIC CATEGORY**
D1, D3

SC451 Optical Fiber Sensors

**INSTRUCTORS**
Alexis Mendez, MCH Engineering, USA
William Shroyer, SageRider, Inc., USA

**COURSE LEVEL**
Advanced Beginner and Intermediate

**TOPIC CATEGORY**
D5

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