Sino-Danish Photonics Workshop

4 September 2012, Shenzhen, China

Sino-Danish Photonic Workshop is a research workshop that showcases Chinese and Danish strongholds and focus areas and will allow for matchmaking and networking. The ambition is that workshop will spur and stimulate future Sino-Danish collaborations within academia and industry.

DTU Fotonik
Department of Photonics Engineering

INNOVATION CENTRE DENMARK, SHANGHAI
THE TRADE COUNCIL · EKSPORTRÅDET

Programme

9.00-9.10 Welcome and introduction

Science Consul Lars Christensen, Innovation Centre Denmark

9.10-10.20 Session 1 – Photonic Communications

Photonic Research and International Collaboration at DTU Fotonik
Professor Idelfonso Tafur Monroy, Technical University of Denmark

Photonics Research at JORCEP (Sino-Swedish Joint Research Center of Photonics of the Royal Institute of Technology, Lund University and Zhejiang University)
Professor Sailing He and associate professor Erik Forsberg, Zhejiang University

High Order Modulation Formats for High Capacity Optical Communication Systems
Professor Chao Lu, The Hong Kong Polytechnic University

10.20-10.50 Break and networking

10.50-12.20 Session 2 – Novel Photonic Technologies, part A

R&D of Optical Fiber Sensors at the Photonics Research Center of the Hong Kong Polytechnic University
Professor Hwa-yaw Tam, The Hong Kong Polytechnic University

Photonics for life science: Case OptoRobotix
PhD-Student Ning Kang, Professor Jesper Glückstad, Technical University of Denmark

Narrow linewidth fiber laser and Supercontinuum white light source
Regional Sales Manager Wiedong Sheng, NKT Photonics

Linear Variable Filters for Applications in Spectroscopy and Fluorescence Diagnostics
Business Development Manager Oliver Pust, DELTA

12.30-13.30 Lunch and networking

13.30-15.20 Session 3 – Wireless Communication and Radio over Fiber

Challenges and Solutions for Next Generation Metro and Access Networks
Assistant professor Jesper Bevensee Jensen, Technical University of Denmark

Novel Convergent PON based on OFDM
Professor Xiangjun Xin, Beijing University for Posts & Communications

High Capacity Hybrid Fiber-Wireless Transmission at the 75-110GHz Band
Dr. Deng. Lei, Huazhong University for Science & Technology

Multi-way relaying in wireless cellular networks
Associate professor Elisabeth de Carvalho, Aalborg University

Physical Layer Network Coding in Wireless Communication
Professor Wen Chen, Shanghai Jiaotong University

15.20-15.50 Break and networking

Programme

15.50-17.30 Session 4 – Novel Photonic Technologies, part B

Key Devices and Technologies of the Radio over Passive Optical Network
Professor Deming Liu, Huazhong University for Science & Technology

1300 nm Photonic Crystal VCSELs
CTO Dan Birkedal, Alight

Distributed Parametric Amplifier for Next-Generation Communication Systems
Professor Kenneth K.Y. Wong, University of Hong Kong

IPtronics – Optimum technologies for optical interconnects: Now and in the future.
Director of Sales Thomas Reunert, IPtronics

Engineering the Laser Cavity Transmission for Enhanced Energy in Mode-locked Fiber Lasers
Professor Ping Kong Alexander Wei, The Hong Kong Polytechnic University

17.30-18.00 Conclusions and next steps for future collaboration

Professor Idelfonso Tafur Monroy, Technical University of Denmark

18.00-20.00 Networking and reception

Venue

Address in English:

The Ritz-Carlton, Shenshen

116 Fuhua San Lu,

Futian District,

Shenzhen 518048

Address in Chinese characters

丽思卡尔顿

市福田区福华三路 116 号

深圳 518048

Tel：+86 755 2222 2222

Fax: +86 755 2222 0088

Map and directions

http://www.ritzcarlton.com/en/Properties/Shenzhen/Information/Directions/Default.htm

List of Chinese Participants – Universities (in alphabetical order)

北京郵電大學
Beijing University of Posts and Telecommunications

School of Electronic Engineering, Beijing University of Posts and Telecommunications, founded in 2000, was evolved from Department of Applied Physics, Department of Applied Science and Technology, and Department of Electronic Engineering finally. It has become a key school developed with electronic science as its kernel, with information and telecommunications as its dependence, with device design and system integration as its priority, with three subjects including optoelectronics, microelectronic, and bioelectronics as its main focus.
http://see.bupt.edu.cn/school/english/introduction.php

Dr. Professor. Xiangjun Xin achieved his Ph.D in 2003 from Beijing University of Posts and Telecommunications. His research interests now focus on optical communication and satellite communication. He has presided more than 20 great projects supported by Chinese government, such as 863 and 973 program, National Natural Science Foundation, etc. More than 100 members, including research staff now work in his group.

復旦大學
FUDAN UNIVERSITY

The Communication Science and Engineering Department was founded in May 2000. The Discipline of Electromagnetic Field and Microwave Technology and Radio Physics become State Key Discipline. The Department has Key Laboratory of Wave Scattering and Remote Sensing Information (MOE), the National High Performance Computer Center (Shanghai), the National High Performance Computer Center (Shanghai), Fudan-Intel Multi-media Communication Technology Center and so on.

The department focuses on intelligence communications, information network, high-speed transmission and integrated communication components. It has a team of high level technical leaders, such as Chair Professors from the Nation's One-thousand-talent Scheme and the "Cheungkong Scholars Program" of the Ministry of Education. The Communication Science and Engineering fields are also advanced in China.
http://www.it.fudan.edu.cn/en/content.aspx?info_lb=28&flag=3

Professor Nan Chi received the B.S. degree and Ph.D. degree in electrical engineering from Beijing University of Posts and Telecommunications, Beijing, China in 1996 and 2001, respectively. From July 2001 to December 2004, she worked as assistant professor at the Research Center COM, Technical University of Denmark, Lyngby, Denmark. From January 2005 to April 2006, she was a research associate at the University of Bristol, Bristol, United Kingdom. Since June 2006, she joined Wuhan National Laboratory for Optoelectronics, Huazhong University of Science and Technology, where she worked as a full professor. Currently, she works as the head and full professor in the department of Communication Science and Engineering, Fudan University.

She is the author or co-author of more than 100 papers. Her research interests are in the area of high-speed optical transmission, radio over fibre system, optical packet label switching and digital signal processing for optical communication.
http://www.it.fudan.edu.cn/en/show.aspx?info_lb=23&info_id=54&flag=5

Dr. Yufeng Shao received the B.S. and M.E. degrees from Chongqing University of Posts and Communication, Chongqing, China in 2000 and 2005, respectively. He also obtained his Ph.D. degree from Hunan University, Changsha, China, in 2009. From 2009 to 2011, he was a Postdoc Researcher in the State Key Lab of ASIC & System, and the Department of Communication Science and Engineering, Fudan University. From April 2011 to August 2011, he works as a Research Associate at the Hong Kong Polytechnic

University. Currently, he works as lecturer in the department of Communication Science and Engineering, Fudan University. His current research interests include new modulation format techniques, radio over fiber system, optical label switching, and optical OFDM technology in optical networks. He has authored and co-authored over 90 publications in prestigious international journals and conferences. He holds one Chinese patent with five Chinese patents pending.

華中科技大學
HUAZHONG UNIVERSITY OF SCIENCE AND TECHNOLOGY

Department of Optical Communication and Optical Network Engineering was set up on the basis of Optical Fiber Communication and Sensing Teaching and Research Section and Broadband Optical Interconnection Teaching and Research Section. Key research orientation includes optical fiber communication device and system, optical fiber access network, optical fiber sensing and networking technology, optical fiber illumination technology, optical fiber medical technology, special optical fiber and device technology, optical interconnection technology and other optical communication and optical network technologies.
http://oe.hust.edu.cn:8082/Discipline_Construction/Department_of_Optical_Communications_and_Optical_Network/index.html

Professor Deming Liu is at Huazhong University of Science and Technology in Wuhan, China. He is the director of National Engineering Laboratory for Next Generation Internet Access System. His research interests include optical fiber communication, optical fiber sensor technology, and optical network technology

Dr. Deng Lei received the Ph.D. degree in Optoelectronics and Information Engineering from Huazhong University of Science and Technology, Wuhan, China, in 2012. Now he is a lecturer at the same university. His research interests include fiber-optic communications, advanced modulation and coherent detection technology, radio-over-fiber (RoF) systems and next generation passive optical network (PON) systems.

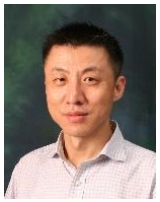
THE HONG KONG POLYTECHNIC UNIVERSITY
香港理工大學

The Department of Electronic and Information Engineering (EIE), formerly known as the Department of Electronic Engineering, was established in 1974. The Department was renamed in 1998 to reflect on the evolution and emergence of new technologies in the discipline during the previous years. Now, in the 21st century the Department pursues a wide range of research activities in many areas of electronic and information engineering. With the ultimate aim of producing preferred graduates who will meet the needs of society, the Department is committed to provide high-quality education to students at undergraduate and postgraduate levels. The Department strives for excellence in research and aims to produce high-impact research outputs that are relevant to industry and society.
http://www.eie.polyu.edu.hk/EIE_Homepage/Home.html

Professor Ping Kong Alexander Wai is currently the Vice President (Research Development) of The Hong Kong Polytechnic University (PolyU) and also Chair Professor of Optical Communications.

His research interests include optical fiber communications and optical networks. Prof. Wai is an active contributor to the technical field, having over 160 refereed international journal publications. He has contributed to the organization, served an invited speaker and keynote speakers of many international conferences. Professor Wai served as Associate Editor of Optics Express. He is a Fellow of The Hong Kong Institution of Engineers, Fellow of Optical Society of America, and Fellow of IEEE. With the approval of the State Ministry of Science and Technology, Professor Wai has been selected for the "National

Science and Technology Programmes Expert Database" since February 2012.
www.polyu.edu.hk/ppoffice/president/research.html
www.eie.polyu.edu.hk/~wai



Professor Chao Lu obtained his BEng in Electronic Engineering from Tsinghua University, China in 1985, and his MSc and PhD from University of Manchester in 1987 and 1990 respectively. He joined the School of Electrical and Electronic Engineering, Nanyang Technological University(NTU), Singapore in 1991 and was an Associate Professor there until 2006. From June 2002 to December 2005, he was seconded to the Institute for Infocomm Research, Agency for Science, Technology and Research (A*STAR), Singapore, as Program Director and Department Manager. Since April 2006, he has been a Professor in the Department of Electronic and Information Engineering, The Hong Kong Polytechnic University. His research interests are in the area of optical communication systems and networks, fibre devices for optical communication and sensor systems.
www.eie.polyu.edu.hk/~enluchao/

Professeor Hwa-yaw Tam received the B.Sc. degree in 1985 and the Ph.D. in 1990 in Electrical and Electronic Engineering, both from The University of Manchester, UK. Currently, he is a Chair Professor of Photonics of the Department of Electrical Engineering at The Hong Kong Polytechnic University and also the Director of the Photonics Research Centre of Faculty of Engineering.

His current research interests are fibre-optics sensors, design, fabrication and applications of specialty silica and polymer optical fibres, photonics sensor networks, optical fibre communications, fibre-optics devices, and optical fibre amplifiers and lasers. Prof. Tam has secured over HK$100 million research funding since 1995 and has published over 500 technical papers and holds/applied 20 patents in the areas of fiber-optics. Several of his inventions also won international awards. Prof. Tam is very active in R & D projects working with companies both locally and overseas in the areas of optical fiber amplifiers, fibre fabrication and sensors. His group has installed photonics sensor networks on the TsingMa Bridge in Hong Kong, KCRC (HK), MRTC (HK), China and Taiwan rail tracks, the 610-m tall Canton Tower and oil tanks in China. He also conducted many collaborative research/ industrial projects with research institutions/companies in Europe, US, India and Taiwan. Prof. Tam is a Chartered Engineer, a senior member of the IEEE and a member of IET.
http://www.ee.polyu.edu.hk/ee/people-hytam.htm

PEKING UNIVERSITY

Institute of Modern Communications focuses on the latest developments of optical fiber communication and the needs of national economic construction and carries out relevant technology and the application research of cutting-edge. The institute conducts basic and applied basic research in optical communication networks, large capacity long-haul wavelength division multiplexing system, broadband high-speed optical communication devices, space optical communication, ROF communication, photonic devices and optical signal processing.
http://eecs.pku.edu.cn/index.aspx?menuid=5&type=articleinfo&lanmuid=83&infoid=228&language=cn

Professor Yuping Zhao received her Master degree from Northern Jiaotong University, Beijing China in 1986, and Doctor of Science degree from Helsinki University of Technology, Finland in 1999. She has been working with Railway Communications and Signaling Company, China; Japan Data System Company, Japan; Nokia Research Center, Finland. Currently she is a professor at Peking University. Dr. Zhao's main research fields are physical layer and MAC layer of wireless communication systems, which include Coding and Modulations,

Mobile Radio Channel estimations, OFDM and MIMO communication Systems, Radio Resource Management, wireless sensor networks.

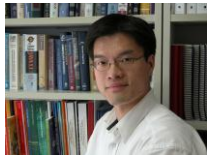
上海交通大學 SHANGHAI JIAO TONG UNIVERSITY

Wireless Network Transmission Laboratory (WNT Lab) was established in 2006 when Prof. Wen Chen joins Shanghai Jiaotong University. WNT focus on wireless network coding, relay networks, cognitive radio, MIMO-OFDM systems, etc.. Our major research are listed as follow s.
http://wnt.sjtu.edu.cn/index.htm

Professor Wen Chen, a senior member of IEEE and Professor of Shanghai Jiao Tong University. Dr. Chen was awarded the Ariyama Memorial Research Prize in 1997, the PIMS Post-Doctoral Fellowship in 2001. He received the honors of "New Century Excellent Scholar in China" in 2006 and "Pujiang Excellent Scholar in Shanghai" in 2007. He is elected to the vice general secretary of Shanghai Institute of Electronics in 2008. He is in the editorial board of the International Journal of Wireless Communications and Networking, and serves Journal of Communications, Journal of Computers, Journal of Networks and EURASIP Journal on Wireless Communications and Networking as (lead) guest editors. He is the Technical Program Committee chair for IEEE-ICCSC2008, the General Conference Chair for IEEE-ICIS2009 and IEEE-WCNIS2010. He has published more than 100 papers in IEEE journals and conferences. His interests cover network coding, cooperative communications, cognitive radio, and MIMO-OFDM systems.
http://wnt.sjtu.edu.cn/

The University of Hong Kong

The Department of Electrical and Electronic Engineering (EEE) was established in late fifties as a major department in the Faculty of Engineering at the University of Hong Kong. The department covers 7 research areas. Within the field of microelectronics, optoelectronics and VLSI the research extends to include high-quality gate dielectrics for MOS transistors based on various semiconductors, micro-sensors, optical micro-arrays, LED's, organic semiconductor devices, nano-structures, ultra-wideband fibre-based source and widely-tunable parametric laser source for bio-photonic applications, EDA and CAD algorithms for the design of filters and signal converters, and efficient circuit simulators based on model order reduction and large-scale matrix equation solvers.
http://www.eee.hku.hk/



Dr. Kenneth Kin-Yip Wong received his M.S. degree in 1998 and Ph.D. degree in 2003, both in electrical engineering at Stanford University. His research field included DWDM systems, fibre nonlinearity, fibre optical parametric amplifiers, microwave photonics, and biophotonics. He is author or co-author of over 200 journal and conference papers. Dr. Wong is currently an Associate Professor in the Department of Electrical and Electronic Engineering in the University of Hong Kong, where he won the Best Teacher Award 2005/06 and Outstanding Young Researcher Award 2008-09. During the 2009/10 academic year, he taught at the Department of Electrical Engineering and Computer Science at Massachusetts Institute of Technology as a Visiting Assistant Professor. He has also been visiting scholars to University of California, Berkeley and San Diego, University of Vancouver, Ryerson University, and University of Lille 1. He is a senior member of the OSA, IEEE, and IEEE Photonics Society.
http://www.eee.hku.hk/~kywong/

Joint Research Centre on Photonics (JORCEP) acts as a center of excellence in photonics for both its parent universities, the Royal Institute of Technology (KTH) and Zhejiang University (ZJU). As such it is not only engaged in research but also in education. The center collaborates in PhD education and also offers an international Master of Science program in photonics, mainly taught by KTH teachers

JORCEP was founded in October 2003 and was then given the three specific tasks of establishing joint research, to cooperate in PhD education and to jointly run an international Master of Science program in Photonics.
coer.zju.edu.cn
www.kth-zju.org

Professor Sailing He Sailing He received the Licentiate of Technology and the Ph.D. degree from the Royal Institute of Technology, Sweden, in 1991 and 1992, respectively. Since then he has worked at the Royal Institute of Technology as an assistant professor, an associate professor, and a full professor. Prof. He is also the Director of the Joint Research Centre of Photonics (JORCEP) of the Royal Institute of Technology (Sweden), Zhejiang University (China), and Lund University (Sweden). Prof. He's current research interests include subwavelength-photonics (incl. plasmonics), sensing, energy and biomedical applications. He has first-authored one monograph (Oxford University Press) and authored/co-authored about 500 papers in refereed international journals Recently his papers have been cited over a thousand times each year (according to ISI Web of Knowledge). Prof. He has given many invited/plenary talks in international conferences, and has served in the leadership for many international conferences. Prof. He is a Fellow of OSA (Optical Society of America) and SPIE (The International Society for Optical Engineering), and a Topical Editor for Optics Letters and in the editorial board for "Laser & Photonics Reviews".
http://www.kth-zju.org/staff-chief%20scientist.htm

Dr. Erik Forsberg received his M.Sc. degree in engineering physics and Ph.D. degree in photonics in 1996 and 2003 respectively, both from the Royal Institute of Technology (KTH) in Sweden.

He has held research positions at Royal Institute of Technology (Sweden), Hokkaido University (Japan) and Zhejiang University (China). Most recently he was the Associate Dean – Graduate Studies & Research at the Higher Colleges of Technology (UAE).

He was the Deputy Director of the Joint Research Center of Photonics from its formation until mid-2008, a position he is at present returning to.

List of Chinese Participants – Corporations (in alphabetical order)

Hong Kong Science & Technology Parks provides advanced laboratories and technical support services to its partner companies with the aim of bolstering the Hong Kong Territory's stature as among the best R&D centres in the region. Particular preference is given to R&D within the fields of electronics, precision engineering, information technology and telecommunications, biotechnology, and green technology.
http://www.lab.hkstp.org

Dr. Y. H. Canny Kwan received the Doctor of Philosophy in 2006 at The Hong Kong Polytechnic University on optical communications. In 2005, she joined Hong Kong Science and Technology Parks Corp. as Engineer to support the testing and the consultation services in solid state lighting devices, fiber optics components and photovoltaic modules.

She has published over thirty international journals and conference proceedings. She also received numerous awards including IEEE LEOS Japan Chapter Student Award and Journal of the Optical Society of America (OSA) Publications Award. Dr. Kwan is a member of IEEE Photonics Society (formerly LEOS).

Huawei is a leading global ICT solutions provider serving more than one third of the world's population in over 140 countries. Through their dedication to customer-centric innovation and strong partnerships, they have established end-to-end capabilities and strengths across the carrier networks, enterprise, consumer, and cloud computing fields. They are committed to creating maximum value for telecom carriers, enterprises and consumers by providing competitive ICT solutions and services. Huawei's dedication to optical research and development was most visibly evidenced by its acquisition of the world-leading photonics research laboratory Centre for Integrated Photonics Ltd. (CIP) in the United Kingdom earlier this year. CIP has a reputation as a world-class incubator in fibre optic transmission and carries out world-leading cutting edge research work in this hi tech area.
http://www.huawei.com/en/

Chief Engineer, Expert in the transmission Qianjin Xiong

Senior Engineer, Supervisor of System Min Chen

Senior Engineer, Supervisor of transmission system Xiaogen Xu

Senior Engineer, Supervisor of Optical Exchange Zhiyong Feng

Cooperation Manager Jiaoyang Huang,

TP-LINK is a global provider of SOHO&SMB networking products and the World's No.1 provider of WLAN and Broadband CPE devices, with products available in over 120 countries to tens of millions customers. Committed to intensive R&D, efficient production and strict quality management, TP-LINK continues to provide award-winning networking products in Wireless, ADSL, Routers, Switches,

IP Cameras, Powerline Adapters, Print Servers, Media Converters and Network Adapters for Global end-users.
www.tplink.com

Mr. Ryan Yang, Project Manager

ZTE Corporation is a leading global provider of telecommunications equipment and network solutions. Through its network of operators across 140 countries, the company delivers innovative products and

business solutions. It connects global customers via voice, data, multimedia and WLAN. Founded in 1985, ZTE is listed on both the Hong Kong and Shenzhen Stock Exchanges and is China's largest listed telecoms equipment company.

ZTE has the industry's most comprehensive product range and end-to-end solutions, covering virtually every telecommunications sector, including wireless, access & bearer, VAS, terminals and professional services. The company's broad range of expertise and flexibility in these areas allows it to satisfy the demands of global operators and assist them in their pursuit of innovation.
http://wwwen.zte.com.cn/en/

Chief Planning Engineer for PTN products Fuchuan Zhao,

Chief Technical Engineer for PTN products Zhiyong Yu,

Optical Transmission Expert Huade Shu

List of Danish Participants – Universities (in alphabetical order)

DTU Fotonik
Department of Photonics Engineering

DTU Fotonik is the Department of Photonics Engineering of the Technical University of Denmark.

DTU Fotonik deals with the design, fabrication and characterization of new types of optical devices based on the newest developments in nanotechnology, such as sensors, lasers, light emitting diodes, micro-structured optical fibers and devices for all-optical signal processing. We investigate and demonstrate new techniques for high capacity optical fiber transmission systems and networks for distributing broadband wired and wireless signals to end-users. We optimize network layout and administration, and develop efficient data compression codes that enhance service quality and minimize the network resources needed.

DTU Fotonik consists of 15 research groups organized in 4 thematic clusters, covering a wide range of photonic engineering topics: Nanophotonics, Light sources and Industrial Sensors, Dynamic Photonics, and Communication Technology. Almost 200 researchers are employed at DTU Fotonik, including more than 50 PhD Students.
http://www.fotonik.dtu.dk/English.aspx

Professor Idelfonso Tamur Monroy is currently head of the metro-access and short range communications group of the Department of Photonics Engineering at the Technical University of Denmark. He has participated in several European research framework projects in photonic technologies and their applications to communication systems and networks. At the moment he is involved in the ICT European projects GiGaWaM and EURO-FOS and is the technical coordinator of the ICT-CHRON project in cognitive flexible optical networks. His research interests are in hybrid optical-wireless communication systems, high-capacity optical fiber communications, digital signal processing for optical transceivers for baseband and radio-over-fiber links, application of nanophotonic technologies in the metropolitan and access segments of optical networks as well as in short range optical-wireless communication links.
http://www.fotonik.dtu.dk/English/Research/Pub_COM.aspx?lg=showcommon&id=30692&type=person

Assistant professor Jesper Bevense Jensen is assistant professor in the Metro-access and Short Range Communications Group at the Department of Photonics Engineering at the Technical University of Denmark, from which he received his PhD in 2008. He has worked as a Postdoc on photonic wireless convergence in home and access networks within the European project ICT-Alpha. He is the coauthor of more than 70 journal and conference papers on optical communication technologies. His research interests include advanced modulation formats, access and in-home network technologies, multicore fiber transmission, advanced modulation of VCSELs, coherent detection using VCSELs, and photonic wireless integration. Jesper views strong international collaboration between academia and industry as the key to meeting the challenges of future communication systems.
http://www.fotonik.dtu.dk/English/Service/Phonebook.aspx?lg=showcommon&type=events&id=19692

PhD-Student Ning Kang (Professor Jesper Glückstad) is M.Sc., PhD Student at DTU Fotonik. Title of her ongoing research topic is phase sensitive amplification using parametric processes in optical fibres. Ning spent 11 years of higher education in Denmark, specialized in electrical and optical engineering. Along the years of study, she had also part-time working experiences as R&D and system engineer. Towards the end of her PhD study, Ning has actively involved in DTU Fotonik's entrepreneurial activities, with the strong interest in

photonics tech-transfer undertakings. With her multi-cultural background over the eastern and the western societies, Ning would like to dedicate her humble contribution to the promotion of international collaborations. In particular, to assist representing DTU Fotonik's spin-out company OptoRobotix in the Asian context.
http://www.fotonik.dtu.dk/English/Service/Phonebook.aspx?lg=showcommon&id=32497&type=person
http://www.fotonik.dtu.dk/English/Service/Phonebook.aspx?lg=showcommon&id=38347&type=person

AALBORG UNIVERSITY

Department of Electronic Systems The Department of Electronic Systems is one of the largest departments at Aalborg University with a total of more than 300 employees. The department is internationally recognized in particular for its contributions within Information and Communication Technology (ICT).

The research and teaching of the Department of Electronic Systems focus on electronic engineering and the activity areas are organized in eleven sections. The department also hosts a number of larger research centers with great international scope. The department focuses on maintaining a close interplay with the university's surroundings - locally, nationally and internationally – as well as producing unique basic research and educating talented and creative engineers. The department collaborates with leading ICT researchers all over the world.
http://www.es.aau.dk/en/

Associate professor Elisabeth de Carvalho received a Ph.D. in electrical engineering from Telecom ParisTech, France. After her Ph.D., she was a post-doctoral fellow at Stanford University and then worked in industry in the field of DSL and wireless LAN. She joined Aalborg University in 2005 where she has led several national and international research projects in wireless communications. Her general area of expertise is in digital signal processing for wireless communications with multiple antennas. She is a co-author of the text book "A Practical Guide to the MIMO Radio Channel".
http://personprofil.aau.dk/112541?lang=en

List of Danish Participants –Cooporations (in alphabetical order)

1300nm VCSEL based TOSA's for lower power dissipation at speeds up to 10 Gbps.

Alight brings long-wavelength VCSEL based TOSA's to the datacom and metro and access optical communication markets. By adding its Photonic Bandgap (PBG) mode control technology to the 1300nm VCSEL platform Alight is enabling high single mode power and high speed applications up to 10 GbE LR/LRM and 8G FC.
The low power consumption of VCSEL based TOSA's enables higher density applications and increased integration. Alight is working with Philips U-L-M Photonics as volume manufacturing partner.
http://www.alight.dk/index.htm#

CEO Dirk Jessen
CEO of Alight Technologies ApS. More than 20 years international management experience in companies like ADC Telecommunications, Ibsen Photonics, Leica and Philips.

CTO Dan Birkedal is founder at Alight Technologies ApS. Ph.D. and M.Sc. in Electrical Engineering from the Technical University of Denmark (DTU). From 1992 he worked at The Microelectronic Center and Research Center COM, DTU, as a Group Leader and Associate Professor in Optoelectronics. From 1997-99 he was Visiting Scientist at Bell Laboratories, Lucent Technologies, Holmdel, New Jersey, USA.

More than 100 papers at peer reviewed international journals and conferences, More than 10 invited presentations at international conferences, three international patent families.

In 2002 he was awarded the 'Elektroprisen' from the Dansk Ingeniørforening - The Danish Engineer Society.

IPtronics is a fabless semiconductor company offering next generation integrated circuits for Parallel Optical Interconnects. Our silicon enables low power, high density, high bandwidth and low cost modules intended for the computer, storage and communications industry.

IPtronics has a leading market segment share in silicon for parallel optical interconnects, more specifically, InfiniBand QDR & FDR AOC/s, 40GE and 100GE transceiver modules. New areas include silicon for mid board optical engines and optical backplanes as well as consumer applications such as Thunderbolt and HDMI.

The company operates from its headquarters in Roskilde, Denmark and its US operations, IPtronics Inc. based in Menlo Park, CA.
http://iptronics.com/

CEO Niels Finseth was prior to co-founding IPtronics A/S, a Engineering Manager at Giga A/S and responsible for all 10Gbps IC product development. He pioneered the world's first integrated physical layer 10Gbps chip set for fiber optical communication which became a technological milestone for Giga and the industry. He took a leading role in key customer relationships worldwide, developing the 10Gbps business for Giga. Furthermore, he was instrumental in driving the 10Gbps product line, which became the crown jewel for Giga. After Intel Corp.'s acquisition of Giga, Niels Finseth was the lead architect managing the transition of 10 Gbps products into sub-micron CMOS

technologies.

Niels Finseth has a Master of Science in Electrical Engineering from the Technical University of Denmark and holds a Graduate Diploma in Business Administration (HD) in Marketing Management and International Trade from Copenhagen Business School.

Director of Sales Thomas Reunert comes from a position as Sr. Technical Marketing Engineer at Intel Corporation, a position for which he was recruited in 2006. Thomas Reunert held positions in technical customer support and marketing at Intel Corporation for 6 years and he brings a wealth of sales, marketing and management experience from positions held in Europe and Asia (China).

Prior to his relationship with Intel, Mr. Reunert worked for Siemens as Hardware Design Engineer with design of RF electronics for Automatic Train Control (ATC) systems. He has a Bachelor of Science in Electrical Engineering from the Technical University of Denmark.

DELTA is a world-leading manufacturer of optical thin film coatings with more than fifty years of experience. In the 1960s, DELTA pioneered optical monitoring techniques to control deposition.

With its unique and advanced optimisation software to match customers' particular optical specifications, DELTA ensures a fast and efficient design process.

Advanced optical coatings

In the early 1990s DELTA pioneered computer controlled optical monitoring and automatic deposition of advanced optical coatings, helping the world's leading manufacturers of analytical instruments in setting new standards.

Already in 2005, DELTA successfully managed to produce optical filters with the Ultra-Hard-Coated technology. DELTA has then led the way towards an ever increasing complexity and performance of optical filters.
http://www.madebydelta.com/

Business Development Manager Oliver Pust is DELTA's Business Development Manager for their optical thin film filter business. He has a background as mechanical engineer and earned his doctoral degree within the field of laser

optical measurement systems. He has a long term experience in working together with international partners and sales of high tech equipment to research and industry customers.

NKT Photonics A/S is the result of a merger in 2009 between Crystal Fibre A/S – the largest commercial supplier of microstructured specialty fiber and Koheras A/S – the leading company within ultra-precise fiber lasers and SuperK Supercontinuum White Light Lasers.

We focus on commercial optical solutions that simplify the value chain and bring enhancement for the end-customer.

Our vision is to continuously increase the functionality embedded in the fiber and thereby provide robust and simplified system architectures for our customers.

NKT Photonics will lead the way in the development of the photonics industry by setting new standards for fiber based lasers and light sources. From the design and manufacture of advanced photonic crystal fibers to the volume production of critical light engines, we are committed to serve our customers with fiber based products at any level of the value chain.

With over ten years of know-how, IP and experience, NKT Photonics strives to continually be the market leader in everything we do.
http://www.nktphotonics.com/

Regional Sales Manager Weidong Sheng is a Ph,D, graduated from Tianjin University in China. Dr Sheng has been working as R&D engineer for solid state laser, frequency conversion, external cavity diode laser and fiber laser for more than 15 year. From 2011 Dr. Sheng has been working in sales and business development for Chinese market.

List of Danish Participants – Official Representations

INNOVATION CENTRE DENMARK, SHANGHAI
THE TRADE COUNCIL · EKSPORTRÅDET

Innovation Centre Denmark, Shanghai (ICDK), is a diplomatic mission in the Danish Ministry of Foreign Affairs, and offers a wide selection of services to Danish researchers and companies looking to innovate and grow through international partnerships. We also provide customised support to Chinese companies looking to establish a presence in Denmark.

ICDK connects cutting edge Danish and Chinese entrepreneurs, researchers, investors and companies to create innovative business models, market strategies and partnerships and deliver inspiration that drives innovation.

The services can be divided into 3 areas: 1) Commercial innovation – Advise and inspire Danish start-ups and high-tech companies looking to innovate and grow through Chinese partnerships 2) Invest in Denmark – Advise Chinese companies looking to establish business activities in Denmark 3) Science, Innovation and Higher Education - Facilitate the collaboration between research institutions and universities in Denmark and China.

Science Consul Lars Christensen has since 2010 worked with Danish and Chinese universities and research institutions to increase the collaboration between China and Denmark. He came from a position in the Danish Ministry for Science, Innovation and Higher Education. He holds two degrees in political science and publication administration.

Innovation Officer Rasmus Duong-Grunnet has since 2010 been working with ICT at Innovation Centre Denmark. Rasmus primarily works with Danish ICT-companies and building up their business in China. He holds a master degree from Fudan University and has also studied Chinese at Shanghai University.