



PolyNano Summer School 2015

August 10-28



In collaboration with:

CELL-O-MATIC



Week 1 - August 10-14		Monday Aug 10	Tuesday Aug 11	Wednesday Aug 12	Thursday Aug 13	Friday Aug 14
Morning: room 344/125 09.00-12.00		Welcome: Introduction & practical issues. Get to know each other	Invited talk 1: Point of care blood gas analyzer (Frank Nielsen, Radiometer) 9-10.	Lecture 5: Interfacing issues Electroanalytical Lab-on-a-chip devices (Arto Heiskanen) 9-10	Lecture 8: Manipulation by light and sound in microfluidic systems (Kirstine Berg-Sørensen) 9-10	Lecture 12: Optical trapping experiments (Kirstine Berg-Sørensen) 9-10
		Start up stories: (1) BlueSense Diagnostics, DK (F. Bosco). (2) NIL technologie, DK-Theodor Nielsen	Lecture 3: Overview of fast prototyping and industrial production of LOC systems (Jenny Emnéus) 10-11. Lecture 4: Introduction to downscaling and microfluidics (Rafael Taboryski) 11-12	Invited talk 3: Cultured light going deeper (Thomas Cizmar) (COST MP1205 lecturer) 10-11 Invited talk 4: Hot nanoparticles and biological applications (Lene Oddershede) (COST MP1205 lecturer) 11-12	Lecture 9: DNA nanofluidics part 1 (Rodolphe Marie) 10-11 Lecture 10: DNA nanofluidics part 2 (Rodolphe Marie) 11-12	How to write a journal article: AIS Sprog, DK. (Ken Lunn, AIS sprog) 10-12
	12.00-13.00	Lunch	Lunch	Lunch	Lunch	Lunch
Afternoon: room 344/125 13.00-18.00		Lecture 1: Optical manipulation of biomolecules and cells (Tomas Cizmar) 13-14 Lecture 2: Refractometric imaging enabled by photonic crystals, Christoph Vannahme, DTU Nanotech 14-15	Invited talk 2 - Overview of 3D printing techniques, Wilgo Feliksdal (Felix Printers, The Netherlands). 13-14	Lecture 6: Electrochemical bioanalysis using Lab-on-a-chip devices I (Arto 13-14) Lecture 7: Electrochemical bioanalysis using Lab-on-a-chip devices II (Arto Heiskanen) 14-15	Lecture 11: Spectroscopy of very small volume samples: an emerging tool in optofluidics (Mihail Pascu) (COST MP1205) 13-15	Invited talk 5: State of the art and future of biosensing systems (Anthony Turner) 13-15
		Poster session: presentation of students own research projects. 14-17 Room 344/105		3D printing workshop (Soumy and Rodrigo Pimentel) 15-18	Workshop on presentation skills (Birthe Berger, AKTI Kommunikation) 15-17	3D printing finishing up
		Welcome party-BBQ 17-?	Demonstration: micro-milling, laser ablation. Hands on 3D printing (Wilgo (Felix), Arto Heiskanen, Soumy Mohnty, Rodrigo Pimentel) 14-18		3D printing workshop (Soumy and Rodrigo Pimentel) 17-18	Social event: Dinner at restaurant Krøgers Have at 18.30. Bus pick up at 17.30 at DTU Nanotech
Week 2 - August 17-21		Monday Aug 17	Tuesday aug 18	Wednesday Aug 19	Thursday Aug 20	Friday Aug 21
Morning: room 344/125 08.30-12.00		Lecture 13: Introduction to Metrology on the micro- and nanoscale (Guido Tosello-DTU-MEK) 8.30-9.30	Lecture 14: Introduction to polymer injection molding, including how to make shims (Rafael Taboryski) 8.30-9.30	Lecture 15: Introduction bonding (Christoph Vannahme) 8.30-9.30	Introduction to labs (three parallel session) 8.30-12	Lab
		Clean room safety course. 10-12	Clean room work	Lab exercise on bonding . 9.30-11 Lecture 16: Introduction to embossing and imprinting (Anders Kristensen) 11-12		
	12.00-13.00	Lunch	Lunch	Lunch	Lunch	Lunch
Afternoon: room 344/125 13.00-18.00		Clean room work	Clean room work	Clean room exercise on NIL. 13-16 Class-room exercises on NIL, Christoph Vannahme 16-17	Lab	Lab
						Social event: Boat trip and dinner in Tivoli Gardens at restaurant Påfuglen. Bus pick up at 15.00 at DTU Nanotech.
Week 3 - August 24-28		Monday Aug 24	Tuesday Aug 25	Wednesday Aug 26	Thursday Aug 27	Friday aug 28
Morning: room 344/125 08.00-12.00		Lab	Lab	Lab	Preparation report and presentation	Presentations
					<i>Feedback from trainers</i>	Course evaluation
	12.00-13.00	Lunch	Lunch	Lunch	Lunch	Social event: Lunch at restaurant RizRaz in Copenhagen. Bus pick up at 12 at DTU Nanotech
Afternoon: room 344/125 13.00-18.00		Lab	Lab	Preparation report and presentation	Preparation report and presentation	
				<i>Feedback from trainers</i>	<i>Feedback from trainers</i>	