

# NAMIS International Autumn School 2014

Room B08 of Delta Building, NTHU

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	31 <sup>st</sup> Aug.	1 <sup>st</sup> Sep.	2 <sup>nd</sup> Sep.	3 <sup>rd</sup> Sep.	4 <sup>th</sup> Sep.	5 <sup>th</sup> Sep.	
08:30-9:00		Registration/ Preparation					
09:00-9:45		<b>Welcome Ceremony</b>	<b>Lecture 4</b>	<b>Lecture 8</b>	<b>Lecture 12</b>	<b>Lecture 16</b>	
		Prof. Alain Bosseboeuf Institut d'Electronique Fondamentale CNRS-University Paris-Sud	<i>Silicon Quantum Dots Phosphors for LED Lighting Applications</i>	<i>Overview of food safety in Taiwan</i>	<i>Magnetic Bio-MEMS/NEMS</i>	<i>Nanowire field-effect transistor for serum vascular endothelial growth factor detection and cancer diagnosis</i>	
		Prof. Jeffrey Da-Jeng Yao Director, Institute of NanoEngineering and MicroSystems, National Tsing Hua University, Taiwan	Prof. Chang-Ching Tu University of Washington, U.S.A.	Dr. Tzung-Hai Yen Chang Gung Memorial Hospital, Linkou, Taiwan	Prof. Meifeng Lai National Tsing Hua University, Taiwan	Prof. Jian-Tai Qiu Department of Biomedical Sciences, School of Medicine, Chang Gung University, Taoyuan, Taiwan	
9:45-10:30		<b>Lecture 1</b>	<b>Lecture 5</b>	<b>Lecture 9</b>	<b>Lecture 13</b>	<b>Lecture 17</b>	
		<i>CMOS-MEMS Technology for Frequency Control</i>	<i>Cell Manipulation with Microfluidic Devices</i>	<i>Use of Mechanical Vibrations for Detection and Actuation of A Single Atom to Cm Sized Object</i>	<i>Adhesion of films and bonded wafers: basic, measurement techniques and applications</i>	<i>Recent Advances in CMOS Vertical Hall Sensors</i>	
		Prof. Sheng-Shian Li National Tsing Hua University, Taiwan	Prof. Chia-Hsien Hsu National Health Research Institutes, Taiwan	Prof. Hideki Kawakatsu Institute of Industrial Science, The University of Tokyo, Japan	Prof. Alain Bosseboeuf Institut d'Electronique Fondamentale CNRS-University Paris-Sud	Prof. Oliver Paul University of Freiburg, Germany	
10:30-10:45		Break					
10:45-11:30		<b>Lecture 2</b>	<b>Lecture 6</b>	<b>Lecture 10</b>	<b>Lecture 14</b>	<b>Lecture 18</b>	
		<i>High Resolution Lithography Techniques for Microsystems and Semiconductors</i>	<i>Optical Engineering and Applications of Metal Nanoparticles Array</i>	<i>Opportunities for MEMS Wireless Sensor Nodes and Energy Harvesters for IoT Environment</i>	<i>Fabrication and Characterization of Miniaturized Electronic Chemical Sensors</i>	<i>Nonlinear Electrokinetics in Nanofluidic System: Fundamentals and Applications of Ion Concentration Polarization.</i>	
		Prof. Chien-Chung Fu National Tsing Hua University, Taiwan	Prof. Dehui Wan National Tsing Hua University, Taiwan	Prof. Hiroyuki Fujita Institute of Industrial Science, University of Tokyo, Japan	Prof. Yu-Lin Wang National Tsing Hua University, Taiwan	Prof. Sung-Jae Kim Energy, Environment and Sustainability Laboratory Department of Electrical and Computer Ebgineering Seoul National University	
11:30-12:15		<b>Lecture 3</b>	<b>Lecture 7</b>	<b>Lecture 11</b>	<b>Lecture 15</b>	<b>Lecture 19</b>	
		<i>Micro Joystick for Non-Planar Image Control</i>	<i>Paper-based Immunoaffinity Devices for Accessible Isolation and Characterization of Extracellular Vesicles</i>	<i>Electroplating of Magnetic materials</i>	<i>Introduction to spectrometers</i>	<i>Biodegradable Microfluidic Systems: Fabrication and Materials Selection</i>	
		Prof. Chengyao Lo National Tsing Hua University, Taiwan	Prof. Chichen Chen National Tsing Hua University, Taiwan	Prof. Meritxell Cortes Institut D'Electronique Fondamentale/ Centre National de la Recherche Scientifique, University Paris Sud, Paris	Prof. Ta-Jen Yen National Tsing Hua University, Taiwan	Prof. Jane Wang National Tsing Hua University, Taiwan	
12:15-13:00			Lunch		Lunch	Lunch	
13:00-13:30					BUS PICK UP		
13:30-14:30			Student Introduction & Oral Presentations for Posters	Lab Work	Technical Tour (Scientific Instrument Center)	Lab Work	Group Presentation
14:30-15:00		Prof. Chichen Chen National Tsing Hua University, Taiwan				Prof. Yu-Lin Wang National Tsing Hua University, Taiwan	
15:00-15:30		Break			BUS PICK UP	Break	
15:30-16:30	Poster Presentation	Lab Work	Visiting Hsinchu Beipu 2hr Tour, Hsinchu		Lab Work	Award Farewell	
	Prof. Chichen Chen National Tsing Hua University, Taiwan						
16:30-17:00	Welcome coffee Smile Café			BUS PICK UP			
17:00-18:00							
18:00-18:30	Dinner (OWN EXPENSE)	Reception Party Casa de Socrates Café, NTHU	Dinner (OWN EXPENSE)	Dinner Party Zun Huang Chinese Restaurant in Chubei	Dinner (OWN EXPENSE)	SEE YOU IN 2015	
18:30-20:30							

## Select 4 from 6 Lab Works:

1. Testing highly integrated microfluidics - a two compartment mixer example(R210, Engineering Building III)
2. Paper diagnostic devices.(R227\_1, Engineering Building III)
3. Measurement of CMOS-MEMS Resonators(R502, Engineering Building I)
4. Characterization of miniaturized electronic chemical sensors(R334, Delta Building)
5. The synthesis of magnetic fluid(R333, Delta Building)
6. Spectral measurement of unprecedented electromagnetic response from artificial sub-wavelength structures(R107, Materials Science Laboratory)

**\*\* Poster Presentation: one person 5 mins.**

**\*\* Group Presentation: one team 15 mins.**