The Eleventh Korea-U.S. Forum on Nanotechnology:

Nanomanufacturing, Nanocomposites and Nanoinformatics

Date: September 29-30, 2014

Venue: Seoul National University, Seoul, Korea

▪ **Hosted by**

National Research Foundation of Korea (Korea)

National Science Foundation (USA)

▪ **Organized by**

National Research Foundation of Korea (Korea)

National Nanotechnology Policy Center, KISTI (Korea)

Korea Nano Technology Research Society (Korea)

Northeastern University (USA)

Carnegie Mellon University (USA)

▪ **Sponsored by**

Ministry of Science, ICT & Future Planning (Korea)

<Tentative Schedule of the Eleventh Forum>_ As of September 17, 2014

September 28, 2014 (Sunday) : Welcome reception		
Reception	18:00-20:00	▪ Welcome reception for U.S. Delegation at Hoam Faculty House(Room Lily/F1), Seoul National University
September 29, 2014 (Monday) At Global Convention Plaza (Room 513), Seoul National University		
Opening Session (Co-chairs: Jo-won Lee / Myung S. Jhon)	08:30-09:00	▪ Registration
	09:00-09:20	▪ Opening Remark - TBA (Ministry of Science, ICT & Future Planning)
		▪ Congratulatory Remark - Mihail Roco (Senior Advisor for Nanotechnology, National Science Foundation)
		▪ Welcoming Remarks - Sun Jae Kim (Director of Nano-Material Technology, National Research Foundation of Korea) - Kirsten Bauman (Science and Technology Counselor, U.S. Embassy in Korea) - Chang Woo Kim (Director General, National Nanotechnology Policy Center)
	09:20-10:00	▪ Keynote Speeches · Mihail Roco (Senior Advisor for Nanotechnology, National Science Foundation) *- Nanotechnology Research Trends in the U.S.* · Haiwon Lee (President, Korea Nano Technology Research Society) *- Current Status of Nanotechnology Development in Korea*
10:00-10:30		Coffee Break
Session I **Nano Manufacturing** (Co-chairs: Kwang-Ryeol Lee / David Carroll)	10:30-12:00 (15min/talk)	▪ Introduction
		▪ Jinho Ahn (Korea / Hanyang University) *- High-Throughput Nanomanufacturing using EUV Lithography*
		▪ Ahmed Busnaina (USA / Northeastern University) *- Scalable Nanoscale Offset Printing System for Electronics, Sensors, Energy and Material Applications*
		▪ Jeong Sook Ha (Korea / Korea University) *- Design and fabrication of novel stretchable devices*
		▪ Veena Misra (USA / North Carolina State University) *- TBA*
		▪ Jun-Hyuk Choi (Korea / Korea Institute of Machinery & Materials) *- Nanoimprint Transfer in Optoelectronic Applications*

		▪ Q&A and Wrap up
12:00-13:30		Luncheon at Restaurant LakGuJung (B1)
Session II **Nano Composites** (Co-chairs: Ki-Bum Kim / Mamadou Diallo)	13:30-15:00 (15min/talk)	▪ Introduction
		▪ Jeung Ku Kang (Korea / KAIST) *- Materials for Energy Storage and Conversion*
		▪ David Carroll (USA / Wake Forest University) *- TBA*
		▪ Jae-Hong Lim (Korea / Korea Institute of Materials Science) *- Electrodeposition of Semiconductor Materials*
		▪ Jessica Winter (USA / Ohio State University) *- High Throughput, Scalable Nanomanufacturing of Nanocomposites via Micellar Electrospray*
		▪ Eunkyong Kim (Korea / Yonsei University) *- Electrochemical switching of transmission in thin films with a long memory effect*
		▪ Q&A and Wrap up
15:00-15:30		Coffee Break
Session III **Nano Informatics** (Co-chairs: Jinho Ahn / Jessica Winter)	15:30-17:00 (15min/talk)	▪ Introduction
		▪ Kwang-Ryeol Lee (Korea / KIST) *- Web 2.0 Based Platform for Nano-materials Design for Energy and Devices*
		▪ Mamadou Diallo (USA / KAIST & CALTECH) *- TBA*
		▪ Seungwu Han (Korea / Seoul National University) *- Searching for Functional Oxides Using High-Throughput AB Initio Screening*
		▪ Mark Tuominen (USA / University of Massachusetts-Amherst) *- TBA*
		▪ Deok-Soo Kim (Korea / Hanyang University) *- Molecular Geometry and Its Application to Nano Informatics and Molecular Design*
		▪ Q&A and Wrap up
Campus Tour	17:00-18:30	▪ Inter-University Semiconductor Research Center Tour only for U.S. Delegation
Banquet (Facilitator: Jinho Ahn)	18:30-20:00 (5min/remark)	▪ Banquet at Restaurant LakGuJung (B1) - Congratulatory Remarks · Jo-won Lee (Hanyang University) · Myung S. Jhon (Carnegie Mellon University)

September 30, 2014 (Tuesday) At Global Convention Plaza (Room 513), Seoul National University		
Poster Session (Co-chairs: Jo-won Lee / Ahmed Busnaina)	09:00-10:30 (3min/talk)	▪ Introduction
		▪ Seong-Yong Cho (Korea / Seoul National University) *- Effect of gas transport inside a micrometer-scale gap jig on the growth of graphene on copper foil*
		▪ Philip Bradford (USA / North Carolina State University) *- TBA*
		▪ Ashvani Kumar (Korea / Seoul National University) *- Less Noisy and Highly Sensitive Graphene Nanopores for Biomedical Applications*
		▪ Jannatul Firdous (Korea / Seoul National University) *- Induction of Long-Term Immunity Against Respiratory Syncytial Virus Glycoprotein by An Osmotic Polymeric Nanocarrier*
		▪ Jiaxing Huang (USA / Northwestern University) *- Repurposing a Consumer Product as Low-cost, Quasi-random Nanoimprinting Templates for Photon Management*
		▪ Chi hyun Park (Korea / Yonsei University) *- Bistable Reversible Electrochemical Mirrors with Ionic Liquid Electrolyte*
		▪ Dae Il Kim (Korea / Korea University) *- Stretchable UV sensor arrays of SnO2 nanowires*
		▪ Tengfei Luo (USA / University of Notre Dame) *- Innovative Nano Materials for Unconventional Thermal Transport Control*
		▪ Sang-Hwa Yoon (Korea / Hanyang University) *- Facet control and Three-dimensional Cuprous Oxide (Cu2O) film by electrodeposition and its photoelectrochemical properties*
		▪ Jung Sik Kim (Korea / Hanyang University) *- Nano-patterning of improved imaging properties by using phase-shift mask technology in EUVL*
		▪ Marilyn Minus (USA / Northeastern University) *- Correlating Structural Control for Property Enhancement in Nano-Composite Fibers*
		▪ Seung Chul Kim (Korea / KIST) *- Virtual Fab – Nano Device Simulation Platform*
		▪ Hiroshi Mizuseki (Korea / KIST) *- Genetic Algorithm Approach for Nanoscale Devices*
		▪ Andrew Spakowitz (USA / Stanford University) *- Membrane Indentation Triggers Clathrin Lattice Reorganization and Fluidization*

		▪ Sang Soo Han (Korea / KIST) *- Development of Web-based Multi-scale Simulation Platform for the Efficient Design of Li-ion Battery*
		▪ Jae-Kwan Kim (Korea / Hanyang University) *- BetaCavity: Program for Molecular Voids and Tunnels*
		▪ Hayden Taylor (USA / University of California-Berkeley) *- Computationally inexpensive simulation and modeling for future lithography processes*
		▪ Kang Hoon Yim (Korea / Seoul National University) *- Searching Novel Higher-κ Dielectric Materials Through High-throughput Ab Initio Approach*
		▪ Dong ki Lee (Korea / KAIST) *- A facile synthesis of multi metal-doped rectangular ZnO nanocrystals using a nanocrystalline metal-organic framework template*
		▪ Q&A and Wrap up
10:30-11:00		Coffee Break
Discussion / Working Groups	11:00-12:30	▪ Group Discussion Workshop - Group 1 : Nano Manufacturing (Room 515) - Group 2 : Nano Composites (Room 516) - Group 3 : Nano Informatics (Room 519)
12:30-14:00		Luncheon at Restaurant LakGuJung (B1)
Wrap up Discussion & Recommendations (Co-chairs: Jo-won Lee / Myung S. Jhon / Ahmed Busnaina)	14:00-14:45	▪ Workshop Report
	14:45-15:30	▪ Draw up Recommendations to the Governments
	15:30-15:45	▪ Poster Award Presentation
	15:45-16:00	▪ Signature of overall summary and recommendations ▪ Closing Remarks