

## SCHEDULE OF SESSIONS

**Wednesday, 22 June**

5:00 PM–8:00 PM

*Opening Plenary and Reception* (plenary: 5:00–6:00 PM, SRC, Auditorium 2)  
(reception: 6:00–8:00 PM, SRC, Dance Atelier 2)

Speaker: **Bruno Latour** (Sciences Po, France)

Discussion: **By the Audience**

**Thursday, 23 June**

10:00 AM–11:30 AM

*01 - Infrastructures of Risk and Disaster (Part I)* (SRC Global)

Organizers: **Yeonsil Kang** (Korea Advanced Institute of Science and Technology, South Korea) and **Scott Gabriel Knowles** (Drexel University, United States)

Comment: **Kim Fortun** (Rensselaer Polytechnic Institute, United States), **Scott Gabriel Knowles** (Drexel University, United States), and **Lee Vinsel** (Stevens Institute of Technology, United States)

**Debjani Bhattacharyya** (Drexel University, United States) [**Robinson Prize Candidate**]:

Manufactured Landscape: Law and Hydraulics in the Ganga-Brahmaputra Delta

**Ashley Carse** (Vanderbilt University, United States) [**Robinson Prize Candidate**]: Drought in the Rainforest: Ships, Cities, and the Slow Disaster of Water Scarcity in Panama

**Takehiko Hashimoto** (University of Tokyo, Japan): Making Fire Resistant Infrastructure in Prewar and Postwar Japanese Cities

**Jennifer Henderson** (Virginia Tech, United States) [**Robinson Prize Candidate**]: Invisible Infrastructures: The Weather Warning Process in the United States

*02 - Understanding Innovation across Cultures and Technologies I: Narratives of Innovation in Eastern Europe, Japan, and the United States* (ERC Global)

Organizers: **Wiebe Bijker** (Maastricht University, Netherlands), **Lars Heide** (Copenhagen Business School, Denmark), and **Annapurna Mamidipudi** (Maastricht University, Netherlands)

Chair: **Wiebe Bijker** (Maastricht University, Netherlands)

Comment: **Annapurna Mamidipudi** (Maastricht University, Netherlands)

**Valentina Fava** (Technische Universität Berlin, Germany): History Matters: Tradition and Innovation in the Modernization of the Soviet and Czechoslovak Automobile Industry

**Osamu Kamei** (National Museum of Nature and Science, Japan): History of Japanese

Petrochemistry Technology Development: From the Systematization of Technologies of NMNS

**Lars Heide** (Copenhagen Business School, Denmark): Dynamics of Innovation in Success and Limits to IBM Mainframe Computers

**03 - Practitioner's Roundtable: Challenges and Opportunities for Working at the Intersections of Technology, Gender Equality, and Youth Empowerment in the 21st Century** (ERC Active)

Sponsor: **Tembusu College**

Organizers and chairs: **Lisa Onaga** (Nanyang Technological University, Singapore) and **Sierin Lim** (Nanyang Technological University, Singapore)

Panelists:

**Pia Bruce** and **Mrinalini Venkatachalam** (Singapore Committee for UN Women, Singapore)

**Honor Harger** (ArtScience Museum, Singapore)

**Isaac Kerlow** (Earth Observatory of Singapore, Nanyang Technological University, Singapore)

**Sami Kizilbash** (Google, Singapore)

**Kiruthika Ramanathan** (Maker Faire, Singapore)

**Vanessa Rheinheimer** (Engineers without Borders, Singapore)

**Sierin Lim** (Nanyang Technological University, Singapore)

**04 - Ordering the Ethnic Minorities in the Southwest of China: Technology of Communication, Herb, and Race Taxonomy** (ERC Seminar 8)

Organizer: **Dong Yuyu** (Shanghai Jiao Tong University, China)

Chair and comment: **Niu Weixing** (Shanghai Jiao Tong University, China)

**Dong Yuyu** (Shanghai Jiao Tong University, China): New Communication Technology of Telephone and Telegram among the Tibetans of Sichuan in the Early Twentieth Century: Political Control and Social Impact

**Zhu Jing** (University of Edinburgh, United Kingdom): Conceptualizing an Ethnographic Body: Technology of Body Measuring and Observation in the Southwest of China in the First Half of the Twentieth Century

**Hu Su** (University of Edinburgh, United Kingdom): Producing Knowledges about a Herbal Medicine: The Caterpillar Fungus

**05 - Animals and Technology: In the Sea** (ERC Seminar 10)

Organizer: **Dolly Jørgensen** (Luleå University of Technology, Sweden)

Chair: **Sverker Sörlin** (Royal Institute of Technology, Sweden)

**Dolly Jørgensen** (Luleå University of Technology, Sweden): Peering beneath the Surface: Technologies of Seeing Underwater Life in Public Aquariums, 1853–2015

**Chein Kragen** (University of Edinburgh, United Kingdom): Extending Laboratory Work into the Sea: A Study on Technology of Milkfish Artificial Propagation in Taiwan

**Delfinn Tann** (Nanyang Technological University, Singapore) [**Robinson Prize Candidate**]: Development of Technology in an Ornamental Fish Farm of Singapore due to Government Pressure

**06 - Cinema and the History of Technology in Korea in the 1960s and 1970s** (ERC Seminar 3)

Organizer: **Sungook Hong** (Seoul National University, South Korea)

Chair and comment: **Tae-Ho Kim** (Hanyang University, South Korea)

**Sungook Hong** (Seoul National University, South Korea): *Six Daughters* and the Changing Technoscape of Korea in the late 1960s

**Taehun Lim** (Chosun University, South Korea): Cultural Films and the Political Propaganda of Mechanical Symbols during the Park Chung Hee Era

**Young June Lee** (Kaywon University of Art and Design, South Korea): *The Red Scarf* and the Synchrony of Speed in Modern War Machine

**07 - Technology Rules** (ERC Seminar 1)

Chair and comment: **David Burke** (Auburn University at Montgomery, United States)

**Joseph P. Lupton** (Georgia Institute of Technology, United States): Unintended Consequences: E.U. and U.S. Regulation for Sustainable Sourcing and Its Impact on the Vietnam Furniture Industry and Lumber Sourcing in Asia

**Arthur Daemmrich** (Smithsonian Institution, United States): Innovation by Regulatory Design: Incentives versus Mandates for Green Chemistry

**David Mercer** (University of Wollongong, Australia): Standards, “Smoking Guns,” and “Sustainable Uncertainty”: The Politics of Scientific Uncertainty in the History of Standard Setting for Electric and Magnetic Fields (EMF)

**08 - National Objects** (ERC Seminar 4)

Chair and comment: **Stuart W. Leslie** (Johns Hopkins University, United States)

**Saara Matala** (Aalto University, Finland) and **Aaro Sahari** (University of Helsinki, Finland): Small Nation and Big Ships: Finnish Icebreakers and Technological Nation Building, 1877–1977

**George Wilkenfeld** (Independent Scholar, Australia): The Stobie Pole: An Unlikely Cultural Artifact of North and South, East and West

**Crystal Abidin** (University of Western Australia) and **Connor Graham** (National University of Singapore): History of the Digital Camera in Singapore, 1994–2006

**09 - What Goes Up Must Come Down** (ERC Seminar 11)

Chair and comment: **Jeff Schramm** (Missouri University of Science and Technology, United States)

**Leigh Edmonds** (Federation University Australia): You Make Them, We Buy and Fly Them: The Experience of Flying Foreign Airliners in Australia in the 1930s

**F. Robert van der Linden** (Smithsonian Institution, United States): *Revolutions in the Sky: Reinventing Flight*—A New Exhibit at the National Air and Space Museum

**Peter Hobbins** (University of Sydney, Australia): The Moment of Impact: The Accidental Airspace of Aircraft Crashes

**10 - Hydraulic Technologies in the Premodern World: East and West** (ERC Seminar 2)

Organizer: **Pamela O. Long** (Independent Scholar, United States)  
Chair and comment: **Dagmar Schäfer** (Max Planck Institute for the History of Science, Germany)

**Ling Zhang** (Boston College, United States): Dyking or Diverting, Blocking or Channeling: Yellow River Hydraulics in Northern-Song and Jin China, 960–1234 CE

**Adam Lucas** (University of Wollongong, Australia): Water Rights and the Law of Nuisance in Post-Conquest England: Milling, Fishing, and Navigation

**Pamela O. Long** (Independent Scholar, United States): Hydraulic Engineering in Late Sixteenth Century Rome

**Philip C. Brown** (The Ohio State University, United States): Dike, Dam, Drain, or Polder? Water Engineering in Early Modern Japan

**11 - Beyond Brain Drain, Brain Gain: Locating Western-Educated Asian Engineers** (ERC Seminar 9)

Organizers: **Ross Bassett** (North Carolina State University, United States) and **Hyungsub Choi** (Seoul National University of Science and Technology, South Korea)

Chair and comment: **Dong-Won Kim** (Harvard University, United States)

**Ross Bassett** (North Carolina State University, United States): Tradition and Modernity: Indian Business Families and MIT, 1922–1973

**Hyungsub Choi** (Seoul National University of Science and Technology, South Korea): The “Minnesota Project” and the (Re)construction of Engineering in South Korea, 1955–1962

**Anto Mohsin** (Northwestern University in Qatar): Adding Value or Proving One’s Self? B. J. Habibie and Indonesian Engineers Trained Overseas

**Thursday, 23 June**  
1:00 PM–2:30 PM

**12 - 10 Years of EASTS: Thinking with Regions in STS** (ERC Active)

Organizer: **Wen-Hua Kuo** (National Yang-Ming University, Taiwan)

Comment: **Sungook Hong** (Seoul National University, South Korea)

**Sulfikar Amir** (Nanyang Technological University, Singapore): STS in the Archipelago: Knowledge and Transformation in Indonesia

**Togo Tsukahara** (Kobe University, Japan): Shall We Never Bring Up the History of Colonial Science/Technology Again? Japanese Colonial Science/Technology and the Problems of Its Historiography

**Hyungsub Choi** (Seoul National University of Science and Technology, South Korea): The Social Construction of Imported Technologies: Reflections on the Social History of Technology in Modern Korea

**Wen-Hua Kuo** (National Yang-Ming University, Taiwan): Tracing Living Traditions: Asian Medicines and Their Paths toward Modernization

**Izumi Nakayama** (Hong Kong University, Hong Kong): Between the Breast and the Bottle: Exploring the Politics of Gender, Motherhood, and Technology in East Asia

**13 - Understanding Innovation across Cultures and Technologies II: Social Embedding of Innovation—Women, Labor, Industry** (ERC Global)

Organizers: **Wiebe Bijker** (Maastricht University, Netherlands), **Lars Heide** (Copenhagen Business School, Denmark), and **Annapurna Mamidipudi** (Maastricht University, Netherlands)

Chair: **Annapurna Mamidipudi** (Maastricht University, Netherlands)

Comment: **Lars Heide** (Copenhagen Business School, Denmark)

**B. Zorina Khan** (Bowdoin College, United States): Women and Technology in Britain, France, and the United States: Evidence from 19<sup>th</sup>-Century Patents and Industrial Prizes

**Jongmin Lee** (University of Virginia, United States): Empowering and Poisoning: Viscose Rayon's Journey across the Pacific

**Ling-Fei Lin** (Nanyang Technological University, Singapore): The (Social) Shifting Effect of Innovation in the Laptop Industry: Whose Innovation, Whose Cost, and Whose Benefit?

**14 - Undercurrents: Personal (and Tacit) Knowledge in Technology Studies** (ERC Seminar 8)

Organizer: **Lee Vinsel** (Stevens Institute of Technology, United States)

Chair and comment: **Jennifer Alexander** (University of Minnesota, United States)

**Monique Dufour** (Virginia Tech, United States): The Embodied Reader

**Yulia Frumer** (Johns Hopkins University, United States): Technological Encounters as Prisms into Undercurrents of Personal Knowledge

**Lee Vinsel** (Stevens Institute of Technology, United States): Habits, Experiences, and Dispositions in the Study of Regulation and Technological Change

**15 - Sound Recording and Surveillance** (ERC Seminar 4)

Organizer, chair, and comment: **Mara Mills** (New York University, United States)

**Joeri Bruyninckx** (Maastricht University, Netherlands): Testing Animal Hearing: Sound Technologies as Hearing Aids in Twentieth-Century Bioacoustics

**Jennifer Hsieh** (Stanford University, United States): Selective Hearing: Decibel Meters in Taiwan's Noise Control System

**Eun-Sung Kim** (Kyung Hee University, South Korea): The Technical Surveillance of Social Movement: Comparing the Sensory Power of Cameras and Noise-Meters for Protest Control in Korea

**16 - Systems Thinking: Complexity and Simplification when "Making Things Work" (Part I)**  
(ERC Seminar 1)

Organizer: **Dagmar Schäfer** (Max Planck Institute for the History of Science, Germany)

Chair and comment: **Hunter Heyck** (University of Oklahoma, United States)

**Fan Fa-ti** (State University of New York at Binghamton, United States): Thinking Networks, Sensing Disasters: Earthquake Prediction in Socialist China

**Edward Jones-Imhotep** (York University, Canada): The Dangers of Systems: Victorian Railways and the Rise of the Technological Accident

**Carsten Reinharth** (Chemical Heritage Foundation, United States, and Bielefeld University, Germany): Research Methods and Science Policy in Late-twentieth Century United States

**17 - Experts in Transitions: Self-Images, Political Agency, and State Power in the Global Professionalization of Engineers, 1850 to 1940** (ERC Seminar 2)

Organizers: **Adelheid Voskuhl** (University of Pennsylvania, United States) and **Aleksandra Kobiljski** (National Center for Scientific Research, France)

Chair: **Tatsushi Fujihara** (Kyoto University, Japan)

**Aleksandra Kobiljski** (National Center for Scientific Research, France): The 1929 World Engineering Congress in Tokyo and the Reconfigurations of the Engineering Profession in Modern Japan

**Adelheid Voskuhl** (University of Pennsylvania, United States): Engineers' Identities in Post-Bourgeois and Post-Revolutionary Environments: Germany and the U.S., 1900 to 1933

**Asif Siddiqi** (Fordham University, United States): Feeding the Gulag: Soviet Engineers and Stalinist Terror

**18 - The History of Technology in the Disciplinary System** (ERC Seminar 3)

Sponsor: **Asia Research Institute**

Organizer: **Yao Dazhi** (Institute for the History of Natural Science, China)

Chair and comment: **Ronald R. Kline** (Cornell University, United States)

**Fang Yibing** (Chinese Academy of Sciences, China), The Difficult Marriage of Industrial Archeology and the History of Technology: Towards a More Progressive Union in China

**Dolly Jørgensen** (Luleå University of Technology, Sweden), the History of Technology and Living Things

**Zhihui Zhang** (Chinese Academy of Sciences, China), The Rise of Engineering Studies in China, or A Fragmentation of Chinese History of Science and Technology?

**Bradley Fidler** (University of California, Los Angeles, USA), The History of Technology in a Shifting Geopolitical Economy

**19 - Waste and Recycling during WWII: A Transnational Perspective on Waste Flows in Times of Total War and Occupation** (ERC Seminar 9)

Organizer: **Heike Weber** (Bergische Universität Wuppertal, Germany)

Chair: **TBA** (TBA)

Comment: **Tetsuji Okazaki** (University of Tokyo, Japan)

**Heike Weber** (Bergische Universität Wuppertal, Germany): Scope and Impact of the Nazi "Recycling Regime"

**Chad Denton** (Yonsei University, South Korea): Salvage as National Spiritual Mobilization: Imitating the Germans in Wartime Japan, 1937–1945

**Paul Kreitman** (University of London, United Kingdom): Attacked by Excrement: The Political Ecology of Night Soil in Wartime and Postwar Tokyo

**20 - Technology, Modernity, and Empire: Technological Innovations and American Colonial Rule in Early 20<sup>th</sup> Century Philippines** (ERC Seminar 10)

Organizer: **Aaron Abel T. Mallari** (University of the Philippines)

Chair and comment: **William K. Storey** (Millsaps College, United States)

**Kerby C. Alvarez** (University of the Philippines): Barometers and the Empire: Weather Instruments and the Philippine Weather Bureau, ca. 20th Century

**Nicolo Paolo P. Ludovice** (Ateneo de Manila University, Philippines): The War Against Carabaos: Social Responses to Tractors, Threshers, and Plowing Machines in the Philippines, 1890–1941

**Aaron Abel T. Mallari** (University of the Philippines): The Electric Chair, Penology, and the American colonial regime in the Early 20th Century Philippines

**21 - Craft in the Face of Modernity** (ERC Seminar 11)

Chair: **Harro Maat** (Wageningen University, Netherlands)

**Achintya Kumar Dutta** (University of Burdwan, India): Engaging with Indigenous Technology in the Metal Craft of Rahr Bengal during Colonial Rule

**Ana Duarte Rodrigues** (University of Lisbon, Portugal): Traditional Irrigation Systems in the Southern Iberian Peninsula: A Key for Sustainability

**Angelica Agredo** (King's College London, United Kingdom) [**Robinson Prize Candidate**]: “Concrete roads and the bullock cart”: Roads and Road Transport in India during the Interwar Years

**Jorun M. Stenøien** (Norwegian University of Science and Technology, Norway): Aquaculture a Melting Pot? What Is Valued as Good Craftsmanship in this Environment of Change?

**Thursday, 23 June**

3:00 PM–4:30 PM

**22 - Systems Thinking: Complexity and Simplification when “Making Things Work” (Part II)**  
(ERC Seminar 1)

Organizer: **Dagmar Schäfer** (Max Planck Institute for the History of Science, Germany)

Chair and comment: **Hunter Heyck** (University of Oklahoma, United States)

**Dagmar Schäfer** (Max Planck Institute for the History of Science, Germany):

Controlling degrees: Work (*gongzuo*) in Qiu Jun's (1421–1495) *Statecraft Guide*

**Matteo Valleriani** (Max Planck Institute for the History of Science, Germany): The Systematization of Knowledge at Pope's Will: The Medieval Liturgic Calendar

**Dagmar Wujastyk** (University of Alberta, Canada, and University of Vienna, Austria): From Herbal-Based Medicine to Iatrochemistry: System Changes in Classical Indian Medicine

**23 - *Technology and Knowledge*** (ERC Seminar 11)

Chair and comment: **Lee Vinsel** (Stevens Institute of Technology, United States)

**Simon Dumas Primbault** (European University Institute, Italy) [**Robinson Prize Candidate**]:  
An Anthropological Glance at the Writing and Conservation of Mechanical Research Notebooks  
in Late Seventeenth-Century Italy

**Lif Lund Jacobsen** (Danish National Archives, Denmark): Discovering the Earth's Inner Core:  
Instrumentalization, Scientific Networks, and Tacit Knowledge in 1930s European  
Seismological Research

**Egle Rindzeviciute** (Kingston University, United Kingdom): From Nuclear Winter to the  
Anthropocene: Government through a Virtual Milieu

**24 - *Making Modernity: Technology in Regional History*** (ERC Seminar 9)

Organizers: **Erik van der Vleuten** (Eindhoven University of Technology,  
Netherlands) and **Francesca Bray** (University of Edinburgh,  
United Kingdom)

Chair: **Francesca Bray** (University of Edinburgh, United Kingdom)

Comment: **Keith Breckenridge** (University of Witwatersrand, South Africa)

Panelists:

**Angela Leung** (University of Hong Kong)

**Gonçalo Santos** (University of Hong Kong)

**Ruth Oldenziel** (Eindhoven University of Technology, Netherlands)

**Helmuth Trischler** (Deutsches Museum, Germany)

**Nina Wormbs** (Royal Institute of Technology, Sweden)

**25 - *Philosophical Anthropology and Histories of Technology: Philosophical Provocations***  
(ERC Seminar 2)

Organizer and chair: **Carl Mitcham** (Colorado School of Mines, United States)

**Carl Mitcham** (Colorado School of Mines, United States): Introduction—Relationships between  
Philosophical Anthropology and History of Technology

**Jing Di** (Renmin University of China): Presentation—José Ortega y Gasset: Existentialist  
Anthropology and the Periodization of Technology

**Huang Xiaowei** (Tsinghua University, China) and **Li Tong** (Renmin University of China):  
Presentation—Li Zehou: Toward an Aesthetic Anthropological Perspective on Technological  
Progress

**Xue Guibo** (Nanjing Forestry University, China): Comment—Environmental Ethics,  
Anthropology, and the History of Technology

**Yao Dazhi** (Chinese Academy of Sciences, China): Comment— Chinese Technology in  
Bertrand Gille's *Histoire des Techniques*: History and Anthropology

**Li Sanhu** (Guangzhou Academy of Governance, China): Comment— Engineering Studies  
Perspective on Anthropology and History of Technology

**26 - Accidents and Disasters** (ERC Seminar 10)

Chair and comment: **Itty Abraham** (National University of Singapore)

**Karampatsos Christos** (University of Athens, Greece): Efrosiini Crossing Syngrou Avenue: Automobile Accidents and the Introduction of the Automobile in Greece (1900–1911)

**Johannes-Geert Hagmann** (Deutsches Museum, Germany): The 1923 Great Kantō Earthquake and the Construction of Self-Image of Japanese Science and Engineering in the Interwar Period

**Alexis Rider** (University of Pennsylvania, United States) [**Robinson Prize Candidate**]: A Mine Fire and Meaning: Beyond Envirotechnical Systems

**27 - Food Technology under Cultural Changes in the East and West** (ERC Active)

Organizer and chair: **Tae-Ho Kim** (Hanyang University, South Korea)

Comment: **Tatsushi Fujihara** (Kyoto University, Japan)

**Seung-joon Lee** (National University of Singapore): Industrializing Diet: Food Technology and China's Total War

**Xaq Frohlich** (Korea Advanced Institute of Science and Technology, South Korea): The Informational Turn in Food Politics: The U.S. FDA's Nutrition Label as "Information Infrastructure"

**Tae-Ho Kim** (Hanyang University, South Korea): Searching for "a Refrigerator for Koreans": The Invention of Kimchi Refrigerator in South Korea in the 1990s

**28 - Understanding Innovation across Cultures and Technologies III: The Crafting of Innovation in Africa, India, and Japan** (ERC Global)

Organizers: **Wiebe Bijker** (Maastricht University, Netherlands), **Lars Heide** (Copenhagen Business School, Denmark), and **Annapurna Mamidipudi** (Maastricht University, Netherlands)

Chair: **Lars Heide** (Copenhagen Business School, Denmark)

Comment: **Wiebe Bijker** (Maastricht University, Netherlands)

**Frank Edward** (Technische Universität Darmstadt, Germany): Drainage Infrastructures in Dar es Salaam, Tanzania, 1891–1960: When Technological Innovation and Health Intersect

**Annapurna Mamidipudi** (Maastricht University, Netherlands): Crafting Innovations for Sustainability: Learning from the Handloom Textile Weavers of South India

**Nobumichi Ariga** (National Museum of Nature and Science, Japan): Conceptualizing the Innovation in Government White Papers: Japanese "Gijutsu-Kakushin" (Technological Innovation) in the Postwar Period

**29 - Nature, Technology, and Development: Biofacts in Engineered Environments**  
(SRC Global)

Organizers: **Lukas Breitwieser** (Technische Universität München, Germany)  
and **Franziska Torma** (Technische Universität München,  
Germany)  
Chair: **Karin Zachmann** (Technische Universität München, Germany)  
Comment: **Tiago Saraiva** (Drexel University, United States)

**Suzana Alpsancar** (Technische Universität Braunschweig, Germany): The Virtualization of Plant Collections and How It Affects the Naturalness and Technicity of the Collected Objects (Biofacts)

**Eda Kranakis** (University of Ottawa, Canada): Patents in the Making of Monsanto's Biotechnology Empire: The Case of Roundup Ready® Crops in Canada and Argentina

**Lukas Breitwieser** (Technische Universität München, Germany): Biofacts of the Atomic Age: Radiant Developments in Ghana's Agriculture

**Franziska Torma** (Technische Universität München, Germany): Provincializing Hybrid Corn? Reconstruction, Technical Assistance, and West German Agriculture

**30 - Reconsidering Technical History of Technology** (ERC Seminar 4)

Organizer: **Chen-Pang Yeang** (University of Toronto, Canada)  
Chair and comment: **Kenji Ito** (Graduate University for Advanced Studies, Japan)

**Shaul Katzir** (Tel Aviv University, Israel): The Technical Resistance to AT&T's Monopoly on the Quartz Clock

**Takashi Nishiyama** (State University of New York, Brockport, United States): Technical History of Technology: Aerodynamics for War and Peace in Japan, 1932–64

**Chen-Pang Yeang** (University of Toronto, Canada): Emergence of Informational Noise: Technology, Uncertainty, and an Alternative Origin Story of Information Science

**31 - Technology in China across the Ages** (ERC Seminar 3)

Chair and comment: **Fan Fa-ti** (State University of New York at Binghamton, United States)

**Chen Wei** (Chinese Academy of Sciences, China): The Different Description Base on the Common Inclination: The Investigation of the Traction System of Chinese Chariots from J. Needham and Chinese Scholars

**Jiren Feng** (University of Hawaii at Hilo, United States): Intertwined Cultures in the Qing-Dynasty Architectural Terminology: The Building Knowledge Presented in the *Gongcheng Zuofa* (Construction Methods, 1734)

**Jianjun Mei** (Needham Research Institute, United Kingdom): Some Thoughts on Needham's Intellectual Heritage

**32 - Comparative History of Communications Technologies** (ERC Seminar 8)

Chair and comment: **Graeme Gooday** (University of Leeds, United Kingdom)

**Adrian James Kirwan** (Maynooth University, Ireland) [**Robinson Prize Candidate**]:

Developing Telephony at the Edge of the United Kingdom: The Telephone Company of Ireland, 1878–1893

**Mark J. Crowley** (Wuhan University, China): Technological Change and Post Office Communications, 1918–1945

**Kathryn Holliday** (University of Texas at Arlington, United States): The Windowless Technological Box: The Beginnings of the Invisible Telecommunications Network

**Friday, 24 June**

10:00 AM–12:00 PM

**33 - From Mechanical Arts to Present Maker Movements: Forgotten Genealogies of Art, Technology, and Science** (ERC Global)

In cooperation with: **ArtScience Museum, Singapore**

Organizer: **Denisa Kera** (National University of Singapore)

**Kaitlyn Marie Braybrooke** (University of Sussex, United Kingdom) and **Sally Jane Norman** (University of Sussex, United Kingdom): Technologies and Performative Play: Re-Creation and Subversion of Institutionalized Cultures / Cultural Institutions

**Denisa Kera** (National University of Singapore) and **Markéta Dolejšová** (National University of Singapore): Prototypes of Science Instruments in Renaissance Science and Present DIYbio—Integrating Technology, Arts, and Crafts

**Emile Devereaux** (University of Sussex, United Kingdom): Participatory Cartography in Design Anthropology: Maps and Media for Speculative Futures

**Kate O’Riordan** (University of Sussex, United Kingdom): Fabulation and Fabrication: Biosensors, Experience, and Materialisms

**Jennifer Parker** (University of California, Santa Cruz, United States): Enacting Digital Art and Civic Opportunities: Data as Material for Action

**34 - *International Perspectives on the History of Gender and Technology*** (SRC Global)

Co-Sponsors: **The Berkshire Conference of Women Historians and The Society for the History of Technology**

Organizers: **Susan Yohn** (Hofstra University, United States) and **Emily K. Gibson** (Georgia Institute of Technology, United States)

Chair: **Arwen P. Mohun** (University of Delaware, United States)

Comment: **Ruth Schwartz Cowan** (University of Pennsylvania, United States)

**Margaret Vining** (Smithsonian Institution, United States) and **Barton C. Hacker** (Smithsonian Institution, United States): *Bridging the Ocean: Technology and Nineteenth-Century Women's Transatlantic Activism*

**Sujin Lee** (Cornell University, United States): *Birth Strike: Yamakawa Kikue's Socialist Feminist Critique of Sex and Class*

**Laura Bier** (Georgia Institute of Technology, United States): *The Pleasures of Domesticity: Household Appliance Advertisements, Gender, and the Democratization of Well Being in Nasser's Egypt*

**Emily K. Gibson** (Georgia Institute of Technology, United States): *"L'art de faire un bon voyage": Air France's *Hôtesses de l'Air* and the Domestication of Flight and Travel within the Declining French Empire, 1946–1960*

**35 - *Roundtable: Craft and Art in Innovation, and Innovation in the Arts and Crafts—Exploring New Engagements for the History of Technology*** (TC Reading Room)

Organizers: **Annapurna Mamidipudi** (Maastricht University, Netherlands) and **Wiebe Bijker** (Maastricht University, Netherlands)

Panelists:

**Annapurna Mamidipudi** (Maastricht University, Netherlands)

**Sushruti Santhanam** (Savitribai Phule Pune University, India)

**Pamela O. Long** (Independent Scholar, United States)

**Pamela Smith** (Columbia University, United States)

**Uzamma** (Independent Scholar, India)

**John Bosco Lourdusamy** (Indian Institute of Technology Madras, India)

**Francesca Bray** (University of Edinburgh, United Kingdom)

**36 - *Technology for City, City for Technology*** (ERC Seminar 10)

Organizer: **Buhm Soon Park** (Korea Advanced Institute of Science and Technology, South Korea)

Chair and comment: **Takehiko Hashimoto** (University of Tokyo, Japan)

**Stuart W. Leslie** (Johns Hopkins University, United States) and **Yin Hang Phoebe Tang** (Johns Hopkins University, United States): Staking a Claim to Biotech: Singapore and San Diego's Science Cities

**Robert Cowley** (King's College London, United Kingdom): Science Fiction and the Smart-Eco City

**Buhm Soon Park** (Korea Advanced Institute of Science and Technology, South Korea), **Youjung Shin** (Korea Advanced Institute of Science and Technology, South Korea), and **Taemin Woo** (Korea Advanced Institute of Science and Technology, South Korea): A Political Life of "Galaxy City": Science Policy, City Planning, and Two Presidential Elections

**Simon Joss** (University of Westminster, United Kingdom), **Robert Kargon** (Johns Hopkins University, United States), and **Arthur Molella** (Smithsonian Institution, United States): "Smart City": Tracing the Historical Roots of the Contemporary Paradigm of Urban Technology

**37 - *Presidential Roundtable: Rethinking Society for the 21st Century*** (ERC Active)

Organizers: **Johan Schot** (University of Sussex, United Kingdom) and

**Suzanne Moon** (University of Oklahoma, United States)

**Francesca Bray** (University of Edinburgh, United Kingdom)

Chair: **Bruce Seely** (Michigan Technological University, United States)

Panelists:

**Johan Schot** (University of Sussex, United Kingdom)

**Suzanne Moon** (University of Oklahoma, United States)

**Itty Abraham** (National University of Singapore)

**38 - *Fashioning Global Patent Cultures: Diversity and Harmonization in Historical Perspective*** (ERC Seminar 9)

Organizers: **Graeme Gooday** (University of Leeds, United Kingdom) and

**Steven Wilf** (University of Connecticut, United States)

Chair: **Graeme Gooday** (University of Leeds, United Kingdom)

Comment: **Steven Wilf** (University of Connecticut, United States)

**Kjell Ericson** (Yale University, United States): Science Applied in Aid of Nature: The First Pearl Patent and the Place of Industrial Property in Meiji Japan

**Bernardita Escobar Andrae** (University of Santiago, Chile): Alternative Patent Cultures in the Chilean Patent System, 1840–1910"

**Courtney Fullilove** (Wesleyan University, United States): Specimens of Ingenuity, and Their Consumption: Fire and Restoration in the U.S. Patent Office

**Tania Sebastian** (Gujarat National Law University, India): The India Twist to Patent Culture

**39 - Technology and Capitalism as U.S. Foreign Relations: Transatlantic and Transpacific Perspectives** (ERC Seminar 3)

Organizers: **Corinna Schlombs** (Rochester Institute of Technology, United States) and **William Chou** (The Ohio State University, United States, and University of Tokyo, Japan)

Chair and comment: **Keith Breckenridge** (University of Witwatersrand, South Africa)

**Corinna Schlombs** (Rochester Institute of Technology, United States): The Promise of Productivity: Technology and the American Capitalist Model in U.S.-German Relations

**Ying Jia Tan** (Wesleyan University, United States): Sino-American Technological Diplomacy and the Nationalization of China's Electrical Industries, 1941-1945

**William Chou** (The Ohio State University, United States, and University of Tokyo, Japan)

**[Robinson Prize Candidate]**: Constructing and Consuming the American Japanese Car: Transpacific Technology and Marketing, 1957-1982

**Pierre Mounier-Kuhn** (National Center for Scientific Research and Université Paris-Sorbonne, France): Transatlantic Configurations: Information Technologies between the U.S. and Peripheral Countries

**40 - On the Co-Evolution of Technology and Culture: Technological Development, Birth Control, and Venereal Diseases Prophylaxis** (ERC Seminar 2)

Organizer: **Wolfgang König** (Technische Universität Berlin, Germany)

Chair and comment: **Suzanne Gottschang** (Smith College, United States)

**Wolfgang König** (Technische Universität Berlin, Germany): The Condom's Difficult Path to Become a High-Tech Product in 20th Century Germany

**Haiyan Yang** (Peking University, China): Making the Pill: A Comparative Study on the Development of the Contraceptive Pill in China and the United States

**Shoan Yin Cheung** (Cornell University, United States): A Therapeutic for a New Millennium: The Birth Control Pill as "Medicine" in Contemporary Japan

**Donna J. Drucker** (Technische Universität Darmstadt, Germany): No Barrier to Innovation: The Trials of the Cervical Cap, 1976-1988

**41 - Imagination/Meaning: Technological Dreamscapes, Fictions, and Futures**

(ERC Seminar 11)

Organizer and chair: **Annie Tomlinson** (Cornell University, United States)

Comment: **W. Patrick McCray** (University of California, Santa Barbara, United States)

**Finn Arne Jørgensen** (Umeå University, Sweden): When the Humanities Went Digital (A History of Technology Told in the Future Tense)

**Samantha Breslin** (Memorial University of Newfoundland, Canada): Planning Creativity and Innovation: Imagining Technological Development in Singapore, 1986–2025

**Jacob Ward** (University College London, United Kingdom) [**Robinson Prize Candidate**]: “The future must be invented, not predicted”: Human Imagination and Computer Prediction in the British Post Office, 1967–1983

**Annie Tomlinson** (Cornell University, United States) [**Robinson Prize Candidate**]: The “Death Ray” and the Test Ban: Imagining America’s Neutron Bomb as Technopolitical Artifact and Regime, 1957–1963

**42 - Robots in Asia: History, Culture, and Politics (Part I)** (ERC Seminar 8)

Organizer and chair: **Chihyung Jeon** (Korea Advanced Institute of Science and Technology, South Korea)

Comment: **Ann Johnson** (Cornell University, United States)

**Anna Guevarra** (University of Illinois at Chicago, United States): Simulations of Care: Labor, Globalization, and the Politics of Innovation in Korean Robotics

**Heesun Shin** and **Chihyung Jeon** (Korea Advanced Institute of Science and Technology, South Korea): Robots, Save Us: Visions of Disaster Robotics in South Korea

**Huang Yu** (The Chinese University of Hong Kong) and **Naubahar Sharif** (Hong Kong University of Science and Technology, China): Replacing Humans with Robots: Technological Change and Industrial Organization in the Pearl River Delta of China

**Selma Šabanović** (Indiana University, United States): Robotics Firsts: Tracing the Development of Robotics through Oral History Interviews

**43 - Things on Display: Exhibitions as a Research Tool in the History of Technology**  
(ERC Seminar 4)

Organizers: **Andreas Marklund** (Post & Tele Museum, Denmark) and **Louise Karlskov Skyggebjerg** (Danish Museum of Science and Technology, Denmark)  
Chair: **Mats Fridlund** (Aalto University, Finland)  
Comment: **Deborah Douglas** (MIT Museum, United States)

**Andreas Marklund** (Post & Tele Museum, Denmark): Exhibitions as a Space for Data Creation: Investigating Information Age Intangibles

**Frode Weium** and **Henrik Treimo** (Norwegian Museum of Science and Technology, Norway): Exhibitions as Recontextualizations: A Recontextualized Telescope—Connecting Things, Exhibitions, and Research

**Louise Karlskov Skyggebjerg** (Danish Museum of Science and Technology, Denmark): Exhibition Work as a Way to Engage in Talks with Objects: Thinking with Objects

**44 - Histories, Poverties, Technologies** (ERC Seminar 1)

Organizers: **Waqar Zaidi** (Lahore University of Management Sciences, Pakistan) and **Nina Lerman** (Whitman College, United States)  
Chair: **Nina Lerman** (Whitman College, United States)  
Comment: **Waqar Zaidi** (Lahore University of Management Sciences, Pakistan)

**Anindita Nag** (German Historical Institute, United States): Reading the Numbers: Statistics and the Politics of Food Scarcity in Colonial India

**Dora Vargha** (University of London, United Kingdom): Iron Lungs across the Iron Curtain: Respiratory Technologies in Times of Global Polio Epidemics

**Kapil Subramanian** (King's College London, United Kingdom): Private Tubewells and the Green Revolution

**Kirsten Moore-Sheeley** (Johns Hopkins University, United States): Disaggregating the "Rural Poor": The History of Insecticide-Treated Bed Net Use in Western Kenya

**Friday, 24 June**  
1:30 PM–5:30 PM

***SHOT Graduate Student Workshop*** (TC Reading Room)

Organizer: **Lars Heide** (Copenhagen Business School, Denmark)

Participants:

**Cecilia Cárdenas-Navia** (Yale University, United States)

**Chris Baumann** (Stockholm University, Sweden)

**Elena Kunadt** (Bergische Universität Wuppertal, Germany)

**Ericka Herazo Berdugo** (Universidad de Los Andes, Colombia)

**Fabian Bechtold** (RWTH Aachen University, Germany)

**Fabian Prieto-Ñañez** (University of Illinois at Urbana-Champaign, United States)

**Gu Xiaoyang** (Peking University, China)

**Karsten Marhold** (Université Libre de Bruxelles, Belgium)

**Kuan-Hung Lo** (Virginia Tech, United States)

**Lasse Blond** (Aarhus University, Denmark)

**Lei Huan-Jie** (Renmin University of China)

**Marcus Schmerl** (Flinders University, Australia)

**Paulina Faraj** (Georgia Institute of Technology, United States)

**Rebecca Miller** (Science and Technology Policy Institute, United States)

**Sanne Aagaard Jensen** (University of Copenhagen, Denmark)

**Yeh-Han Wang** (National Yang-Ming University, Taiwan)

**Zhao Yuting** (Peking University, China)

**Friday, 24 June**  
1:30 PM–3:00 PM

***45 - The Practical Application of Natural Philosophical Knowledge in Early Modern Europe***  
(ERC Seminar 1)

Organizer and comment: **Adam Lucas** (University of Wollongong, Australia)

**Gerhard Wiesenfeldt** (University of Melbourne, Australia): Mathematics at Leiden around 1600: Technical Expertise and the Formation of Dutch Academic Culture

**Luciano Boschiero** (Campion College, Australia): Machines, Motion, and the Académie des Sciences, 1666–1686

**David Philip Miller** (University of New South Wales, Australia): The Natural Philosophy of Steam in the 18th Century

**46 - Presidential Roundtable: Why Feminist Perspectives on Technology Still Matter—A Global Conversation**

(ERC Seminar 3)

Organizer: **Arwen P. Mohun** (University of Delaware, United States)

Chair: **Francesca Bray** (University of Edinburgh, United Kingdom)

Panelists:

**Chia-Ling Wu** (National Taiwan University, Taiwan)

**Annapurna Mamidipudi** (Maastricht University, Netherlands)

**Arwen P. Mohun** (University of Delaware, United States)

**Laura Ann Twagira** (Wesleyan University, United States)

**Karin Zachmann** (Technische Universität München, Germany)

**47 - Roundtable: What Might a Global History of Spaceflight Look Like?** (ERC Global)

Organizers: **Roger D. Launius** (Smithsonian Institution, United States) and  
**Alexander C. T. Geppert** (New York University, United States,  
and NYU Shanghai, China)

**Roger D. Launius** (Smithsonian Institution, United States): The *Longue Durée* of Space Exploration and the Amalgamation of a Technological Endeavor

**Asif A. Siddiqi** (Fordham University, United States): In Place and Left Behind: “Departure Gates” and the Many Global Histories of Space Exploration

**Alexander C. T. Geppert** (New York University, United States, and NYU Shanghai, China): Global Cosmo-Politics and the Planetization of Earth

**Michael J. Sheehan** (Swansea University, United Kingdom): National and Planetary Imaginaries in the Construction of Space Programs

**Erik M. Conway** (Jet Propulsion Laboratory, United States): Entangled Histories of Spaceflight: Thoughts on Preserving Nationalism in Global Histories

**Xi Lu** (Shanghai Institute of Satellite Engineering, China): Globalizing Deep Space Exploration: Cooperation and Win-Win

**Monique Laney** (Auburn University, United States): Migration, Nation, and Space Exploration

**48 - Chinese Technology in Cross-Cultural Context** (ERC Seminar 4)

Chair: **Jianjun Mei** (Needham Research Institute, United Kingdom)

**Wei Qian** (University of Science and Technology Beijing, China): Technology Transfer from China to America? A Case Study of Ironworks in Mid-19<sup>th</sup> Century Kentucky

**Hugo Silveira Pereira** (Universidade Nova de Lisboa, Portugal): Technopolitics, Technodiplomacy, China, and Portugal: The Railway from Macao to Guangzhou (Late Nineteenth–Early Twentieth Centuries)

**Chadwick Wang** (Tsinghua University, China), **Mingyang Li** (Chinese Academy of Sciences, China), and **Hongyao Zhang** (University of Tokyo, Japan): The Abandoned Tradition and the Unopened Package: On the Failure of the Modern Chinese Sugar Industry

**Zhihui Zhang** (Chinese Academy of Sciences, China) and **Yulin Chen** (Hunan University of Science and Technology, China): Space Technology and Geopolitics: Post–Cold War China-U.S. Cooperation and Conflict on Commercial Satellite Launching

**49 - *Managing Risk in a Diverse World: Intersections of Disability, Race, Class, and Technology in the Creation and Confrontation of Disaster*** (ERC Active)

Sponsor: **EDITH**

Organizers: **Fallon Samuels-Aidoo** (Harvard University and Northeastern University, United States) and **Anna Åberg** (University of Turin)

Chair and comment: **Ashley Carse** (Vanderbilt University, United States)

**Fallon Samuels-Aidoo** (Harvard University and Northeastern University, United States):

Disaster Averted? Emergency Services for the American Rail Industry, 1970–1987

**Minae Inahara** (Osaka University, Japan): A Phenomenological Investigation of Disability Inclusive Disaster Risk Management: Vulnerabilities, Disasters, and Technologies

**Philip C. Brown** (The Ohio State University, United States): Facing Natural Hazard Disasters in Early Modern Japan

**50 - *Sexy Problems: Why Do Particular Technological Problems Become Interesting and Attractive at a Certain Moment?*** (ERC Seminar 2)

Organizer: **Ann Johnson** (Cornell University, United States)

Chair and comment: **W. Patrick McCray** (University of California, Santa Barbara, United States)

**Ann Johnson** (Cornell University, United States): Cleaning up Combustion: The Quest for a Better Engine

**Roger Eardley-Pryor** (Chemical Heritage Foundation, United States): Bigger, Longer, Wetter: Stimulating Simulations of Biomolecular Dynamos with Supercomputers in Interdisciplinary Illinois

**David C. Brock** (Computer History Museum, United States): Build Slide: Presentation Software and the Logics of PowerPoint

**51 - *Robots in Asia: History, Culture, and Politics (Part II)*** (ERC Seminar 8)

Organizer and chair: **Chihyung Jeon** (Korea Advanced Institute of Science and Technology, South Korea)

Comment: **David Lucsko** (Auburn University, United States)

**Angela Ndalianis** (University of Melbourne, Australia): From Edo *karakuri ningyo* to 21st Century Japanese Robots

**Colin Garvey** (Rensselaer Polytechnic Institute, United States): Risk and Governance of Artificial Intelligence in the USA and Japan

**Hee Rin Lee** (Indiana University, United States): Individualized Selves of South Korean Home and Social Robotics

**52 - Industrial Warfare Emergent: Technological Legacies of the American Civil War**  
(ERC Seminar 9)

Sponsor: **SMITInG**  
Organizer and comment: **Barton C. Hacker** (Smithsonian Institution, United States)  
Chair: **Margaret Vining** (Smithsonian Institution, United States)

**Seymour Goodman** (Georgia Institute of Technology, United States): The Race to Hampton Roads

**Merritt Roe Smith** (Massachusetts Institute of Technology, United States): The Civil War and the Origins of the Global Arms Bazaar, 1865–1890

**Jeffrey Larrabee** (National Guard Bureau, United States): “A Brief Plea for an Ambulance System”: Lessons Learned and Re-Learned from the Civil War to the World War

**53 - Technology Transfer Reconsidered: Three Cases of Transfer from the West to China**  
(ERC Seminar 10)

Organizer: **Lie Sun** (Chinese Academy of Sciences, China)  
Chair: **Baichun Zhang** (Chinese Academy of Sciences, China)  
Comment: **Per Högselius** (Royal Institute of Technology, Sweden)

**Lie Sun** (Chinese Academy of Sciences, China): German Krupp and Late Qing Chinese Artillery: Technology Transfer through Trade and Imitation

**Bin Wang** (Chinese Academy of Sciences, China): The Impact of Modern Railway Technology Transfer to China: The Case of the Kiaotsi Railway, 1898–1914

**Jinfang Han** (China Association for Science and Technology, China): The Reform of Higher Technical Education Following the Soviet Union’s Model: Beijing Area, 1949–1961

**54 - Innovation through Connections** (ERC Seminar 11)

Organizer: **Jung Lee** (Academia Sinica, Taiwan)  
Chair and comment: **Suzanne Moon** (University of Oklahoma, United States)

**Kuang-Chi Hung** (National Taiwan University, Taiwan): Scientific Forestry and Ecologies of War in Taiwan during the Japanese Colonial Rule

**Sun-sil Oh** (Seoul National University, South Korea): Coordinating a Reasonable Power System for South Korea

**Jung Lee** (Academia Sinica, Taiwan): Beating Twice for Innovation? Thinking Innovation through Papermaking in 19th Century Korea

**Friday, 24 June**  
3:30 PM–5:00 PM

**55 - Roundtable: Teaching History of Technology and Science and Technology Studies (STS) outside the Euro-Atlantic World** (ERC Global)

Organizer and chair: **Anto Mohsin** (Northwestern University in Qatar)

Comment: **Clarissa Ai Ling Lee** (National University of Malaysia)

**Anto Mohsin** (Northwestern University in Qatar): Introducing and Teaching Science and Technology Studies at a Media School in Qatar

**Ellan F. Spero** (Massachusetts Institute of Technology, United States, and Singapore University of Technology and Design, Singapore): Photographic Practice as a Tool for Critical Thinking About Technology in Local and Global Contexts

**Catelijne Coopmans** (National University of Singapore): STS as General Education at Tembusu College, Singapore

**C. Ozan Ceyhan** (Istanbul University, Turkey): Teaching History of Technology in Turkey

**Chihyung Jeon** (Korea Advanced Institute of Science and Technology, South Korea): Pedagogical Challenges in the History of Technology and STS in South Korea

**56 - Pacific Crossings: A Roundtable on the Transpacific History of Technology**

(ERC Seminar 3)

Organizers: **Augustine Sedgewick** (Independent Scholar, United States) and **Teasel Muir-Harmony** (American Institute of Physics, United States)

Chair and comment: **Marc S. Rodriguez** (Portland State University, United States)

**Emily K. Brock** (Max Planck Institute for the History of Science, Germany): Biodiversity as a Technological Challenge: Science, Power, and Trade in a Globalized Southeast Asian Tropical Hardwood Industry

**Teasel Muir-Harmony** (American Institute of Physics, United States): Selling Spaceflight in the Pacific Orbit: Comparing American Propaganda in Asia, Latin America, and Oceania

**Augustine Sedgewick** (Independent Scholar, United States): Coffee Production in the Transpacific Commodity Field, 1888–1941

**57 - Computation and the Behavioral / Psychological Sciences: Intersecting Histories, Technologies, and Discourses** (ERC Seminar 1)

Organizer: **Luke Stark** (New York University, United States)

**Ekaterina Babintseva** (University of Pennsylvania, United States): Self, Computer, and Society: The Development of Computer-Based Education in the United States during the Cold War

**Ian Hartman** (Northwestern University, United States): “The Yoga of the West”: Biofeedback, Transpersonal Psychology, and the Beginnings of the Quantified Self

**Luke Stark** (New York University, United States) [**Robinson Prize Candidate**]: “It’s Messing with Me, It’s Mind Control”: Psychological Experimentation on Social Media Platforms and the History of A/B Testing

**58 - Animals and Technology: On the Land** (SRC Global)

Organizer and chair: **Dolly Jørgensen** (Luleå University of Technology, Sweden)

**Tamar Novick** (Max Planck Institute for the History of Science, Germany) [**Robinson Prize Candidate**]: Documenting Production: The Story of *Stavit*, a Beastly Technology

**Tiago Saraiva** (Drexel University, United States): The Modern Evolutionary Synthesis and Pork: Guinea Pigs and Pig Breeding in the New Deal

**Otniel E. Dror** (Hebrew University of Jerusalem, Israel): Perpetuum Pleasure Mobile

**Amy Fletcher** (University of Canterbury, New Zealand): Listening to Extinction: Eco-Sound from the Movietone Sound System to Soundscape Ecology

**59 - Long-Term Impacts of Joseph Needham’s Science and Civilization in China on the History of Technology I: Asia and Beyond** (ERC Active)

Organizers: **Philip C. Brown** (The Ohio State University, United States) and **Carl Mitcham** (Colorado School of Mines, United States)

**Suzanne Moon** (University of Oklahoma, United States): Needham in Southeast Asia? The Archive and Expanded Histories of Technology

**Shi Xiaolei** (Harbin Normal University, China): Changes in the History of Technology in China since Needham’s Work: The Perspective of the History of Mechanical Engineering

**Jielin Dong** (Soochow University, China) and **Wei Li** (Sun Yat-sen University, China): The Structure of Science and Technology across History: A “Human Needs” Perspective

**Yulin Chen** (Hunan University of Science and Technology, China) and **Zhihui Zhang** (Chinese Academy of Sciences, China): Reflective Studies on SHOT’s Intellectual and Social Organization: The Development Process of SHOT’s Theories, Themes, and Social Organization of the History of Technology

**60 - Fashion and Technology: Consumers, Democratization of Luxury, and New Technologies**  
(ERC Seminar 2)

Organizer: **Emanuela Scarpellini** (University of Milan, Italy)  
Chair and comment: **Ruth Oldenziel** (Eindhoven University of Technology, Netherlands)

**Naoko Inoue** (Tokyo Josai University, Japan): Silk Spinning Technology and Its Impact on Japanese Society in the Late 19th and Early 20<sup>th</sup> Centuries: The Democratization of Silk and the Emergence of the New Consumer Society

**Miki Sugiura** (Hosei University, Japan): Old and New Techniques in Recycling Kimono Clothing: A Connection?

**Emanuela Scarpellini** (University of Milan, Italy): Science and Technology in the Italian Fashion Industry

**61 - Patenting, Promoting, and Politicizing New Technologies: Invention, Innovation, and Ubiquitous Know-How in 18th Century France and Britain** (ERC Seminar 9)

Organizer: **Adam Lucas** (University of Wollongong, Australia)  
Comment: **Pamela O. Long** (Independent Scholar, United States)

**Marie Thébaud-Sorger** (National Center for Scientific Research, France): Playing with Scales for Mastering Nature: The Design of Micro-Inventions in 18th Century France and Britain

**Benjamin Bothereau** (School for Advanced Studies in the Social Sciences, France) [**Robinson Prize Candidate**]: The Imaginary and Technology: Public Lighting Representations in 18th Century Paris

**Daryl M. Hafter** (Eastern Michigan University, United States): Everybody's Know-How in the Age of Guild Regulations

**Jérôme Baudry** (University of Geneva, Switzerland) and **Rachel Gostenhofer** (Brown University, United States): From Priority to Property: Owning and Disowning Inventions in 18th Century France

**62 - Risk and Opportunity in Spaceflight Technology** (ERC Seminar 10)

Organizer: **Paul E. Ceruzzi** (Smithsonian Institution, United States)  
Chair and comment: **Alexander C. T. Geppert** (New York University, United States, and NYU Shanghai, China)

**Paul E. Ceruzzi** (Smithsonian Institution, United States): The Apollo Guidance Computer, the Integrated Circuit, and the Birth of Silicon Valley, 1962–1972

**Ashok Maharaj** (Tata Consultancy Services, India): Transnational Networks and Knowledge Flows in the Making and Launching of APPLE: India's first Geostationary Satellite

**Michael J. Neufeld** (Smithsonian Institution, United States): The Discovery Program: Competition, Innovation, and Risk in Planetary Exploration

**63 - Making Games Go: Hardware and Software at the Intersection of Computer and Game History** (ERC Seminar 8)

Organizer: **Laine Nooney** (Georgia Institute of Technology, United States)

Chair: **Maria Haigh** (University of Wisconsin, United States)

Comment: **Melanie Swalwell** (Flinders University, Australia)

**Laine Nooney** (Georgia Institute of Technology, United States): Puzzling Engines: Game Design and Software Innovation at Sierra On-Line in the 1980s

**Jacob Gaboury** (Stony Brook University, United States): Procedure Crystallized: Graphics Card Histories and the Domestication of 3D

**Stephanie Dick** (Harvard University, United States): Games of Chance in the AI Winter

**64 - Art and Image in Japan** (ERC Seminar 11)

Chair and comment: **Aleksandra Kobiljski** (National Center for Scientific Research, France)

**Yakup Bektas** (Tokyo Institute of Technology, Japan): Miyazawa Kenji's Journey to the Stars

**Tobias Cheung** (Humboldt University of Berlin, Germany): Metabolic Space: Kisho Kurokawa's Future Megalopolis and Its Biotechnic Culture

**W. Patrick McCray** (University of California, Santa Barbara, United States): Big in Japan: Technology, Art, and Osaka's Expo '70

**65 - Bodies and Technologies** (ERC Seminar 4)

Chair: **Achintya Kumar Dutta** (University of Burdwan, India)

**Heong Hong Por** (University of Malaya, Malaysia): Keeping the Fighting Strength: Medicine and Knowledge of Bodies as Military Technology during Malaya's (Counter)Insurgency, 1948–1960

**Kyuri Kim** (Korea Advanced Institute of Science and Technology, South Korea): The Ironies of Surveillance: The Effects and Side-Effects of Introducing Technologies for Tuberculosis Surveillance and Governance in South Korea

**Alana Staiti** (Cornell University, United States) [**Robinson Prize Candidate**]: Bones, Skins, and Joints: ANIMAC and the "Body Language" of Computerized Motion

**Saturday, 25 June**  
10:00 AM–12:00 PM

**66 - (Post)Colonialism, Infrastructures, and the Environment** (ERC Seminar 3)

Organizers: **Ute Hasenöhr** (University of Innsbruck, Austria) and **Jonas van der Straeten** (Technische Universität Berlin, Germany)  
Chair: **Julio Decker** (University of Bristol, United Kingdom)

**Jethron Ayumbah Akalla** (Technische Universität Darmstadt, Germany): Un-packing the Socio-Political Character of LTS: The Race Question and Nairobi's Water and Sanitation Infrastructure, 1899 to 1963

**Julio Decker** (University of Bristol, United Kingdom): Ambitions, Environments, Realities: Imperial Infrastructure in the Philippines and German Southwest Africa, 1898–1918

**Agnes Kneitz** (Renmin University of China): Watering Colonial Visions. German Infrastructure in Kiautshou Bay, 1897–1914

**67 - Game History and the Local I: Locating Histories of Technology** (ERC Seminar 8)

Organizer and Chair: **Melanie Swalwell** (Flinders University, Australia)  
Comment: **Corinna Schlombs** (Rochester Institute of Technology, United States)

**Alex Wade** (Birmingham City University, United Kingdom): Magnetic Fields: Politics and Music in 1980s UK Videogames

**Helen Stuckey** (Flinders University, Australia): Wild Colonial Boys: How Nintendo Tried to Kill the Australian Games Industry

**Ksenia Tatarchenko** (University of Geneva, Switzerland): “Right to Be Wrong”: Gaming, Programming, and Transgression in Late Soviet Computing

**Melanie Swalwell** (Flinders University, Australia): Heterodoxy in Local Games Historiography

**68 - Long-Term Impacts of Joseph Needham's Science and Civilization in China on the History of Technology II: Chinese Reception of Science and Civilization in China** (SRC Global)

Organizers: **Philip C. Brown** (The Ohio State University, United States) and **Carl Mitcham** (Colorado School of Mines, United States)

Chair: **Carl Mitcham** (Colorado School of Mines, United States)

Comment: **Jianjun Mei** (Needham Research Institute, United Kingdom)

**Wenjuan Yin** (Northeastern University Shenyang, China): Chinese Responses to *Science and Civilization in China* by Li Yuese and Colleagues

**Kang Zhang** (Renmin University of China) and **Junhai Zhao** (Renmin University of China): The Needham Problem in China

**Qian Wang** (Dalian University of Technology, China): Daoism and Technology in China

**69 - To Share or Not to Share? Collaborative Approaches to Technological Innovation and Knowledge Management, 1850–World War I (ERC Seminar 9)**

Organizers: **Joris Mercelis** (Johns Hopkins University, United States) and **Lynn Berger** (Columbia University, United States)

Chair and comment: **Gabriel Galvez-Behar** (Université de Lille 3, France)

**Peter B. Meyer** (Independent Scholar, United States): Knowledge Commons, Industry, and Military: Three Frames for Early Aeronautical Patents

**Lynn Berger** (Columbia University, United States): “Photography is Everybody’s Property”: Peer Production and the Photographic Trade Press in the Nineteenth Century United States

**Joris Mercelis** (Johns Hopkins University, United States): Public Knowledge and Private Enterprise: Nineteenth-Century Photography and the Practicability of Open Innovation

**Elizabeth Bruton** (University of Oxford, United Kingdom): Public Debate and Knowledge Management: The Institution of Electrical Engineers and Wireless Knowledge Networks in the Late 19th Century

**70 - Transforming Development: Agricultural Technologies and Knowledge Practices across Asia (ERC Seminar 4)**

Organizer: **Jenny Goldstein** (Cornell University, United States)

Chair and comment: **Suzanne Moon** (University of Oklahoma, United States)

**Chris Shepherd** (Australian National University, Australia): What Is Indigenous and What Is Not? The Ambiguous Case of the Development Industry’s Revival of the *tara bandu* Ritual as a Driver of Agricultural Modernization in Postcolonial East Timor

**Jerome Whittington** (National University of Singapore): Carbon Farming in the Thai Agricultural Industry: Technological Innovation for Global Carbon Offsets

**Harro Maat** (Wageningen University, Netherlands): Circulating Improved Practices for Rice Production: European Colonial Agricultural Science in Asia and Postcolonial Consequences

**Jenny Goldstein** (Cornell University, United States): Cultivating Carbon: Re-Engineering Indonesia’s Peatlands and the Contradictions of Development

**71 - Rethinking Reproductive Technologies and Modernities: Pregnancy, Childbirth, and Reproduction in East Asian Societies, 1800s–2000s (Part I) (ERC Seminar 11)**

Organizers: **Suzanne Gottschang** (Smith College, United States) and **Gonçalo Santos** (University of Hong Kong)

Comment: **Francoise Barbira Freedman** (Cambridge University, United Kingdom)

**Izumi Nakayama** (University of Hong Kong): Defining Infertility in Japan, 1880–1925

**Chiaki Shira** (Shizuoka University, Japan): The History of “Artificial Insemination” in Japan, 1890–1948: Issues Concerning Insemination and Donor Sperm

**Azumi Tsuge** (Meiji Gakuin University, Japan): Motherhood and Prenatal Testing in Contemporary Japan

**Nana Okura Gagné** (The Chinese University of Hong Kong): Pursuing Pregnancy in Contemporary Japan

## **72 - Infrastructures of Risk and Disaster (Part II)** (SRC Seminar 5)

Organizers: **Yeonsil Kang** (Korea Advanced Institute of Science and Technology, South Korea) and **Scott Gabriel Knowles** (Drexel University, United States)

Comment: **Kim Fortun** (Rensselaer Polytechnic Institute, United States), **Scott Gabriel Knowles** (Drexel University, United States), and **Lee Vinsel** (Stevens Institute of Technology, United States)

**Kohta Juraku** (Tokyo Denki University, Japan): Accident Investigation—Learning Process, Healing Process, or Forgetting Process?”

**Yeonsil Kang** (Korea Advanced Institute of Science and Technology, South Korea) [**Robinson Prize Candidate**]: Proof of Environmental-ness: Asbestos Risk and their Evidence in South Korea

**Vivek Kant** (Nanyang Technological University, Singapore) [**Robinson Prize Candidate**]: The Human as a System Component in Nuclear Installations: Jens Rasmussen and High-Risk Systems, 1961–1983

**Max Liboiron** (Memorial University of Newfoundland, Canada): Methodologies for Acting Upon Infrastructures of Slow Disaster?

## **73 - Exploring the Historical Roots of Contemporary Conversations about Engineering Education Reform** (ERC Global)

Sponsor: **Prometheans**

Organizer: **Atsushi Akera** (Rensselaer Polytechnic Institute, United States)

Chair: **Jeff Schramm** (Missouri University of Science and Technology, United States)

Comment: **Bruce Seely** (Michigan Technological University, United States)

**Jingjin Wang** (Tsinghua University, China): Engineering Education in Action: Reforms in Engineering Education in Twentieth-Century China

**Kristina Edström** (Royal Institute of Technology, Sweden): The Tension between Academic and Professional Values in Engineering Education: Comparing the Views of Carl Richard Söderberg and the CDIO Approach

**Atsushi Akera** (Rensselaer Polytechnic Institute, United States): Historical and Structural Foundations of the Proposed Changed in ABET’s Accreditation Standards

**Qin Zhu** (Purdue University, United States): What Counts as a Practical Engineer: Policy Controversies over the Practical Capability in Engineering Education since 1949

## **74 - THATCamp “Un-Roundtable”** (ERC Seminar 1)

Organizers: **Ellan F. Spero** (Massachusetts Institute of Technology, United States, and Singapore University of Technology and Design, Singapore), **Catelijne Coopmans** (National University of Singapore), and **Eric Kerr** (National University of Singapore)

Panelists:

**2016 Singapore THATCamp Participants**

**75 - Presidential Roundtable: Phenomenotechnologies: Individual Perception, Collective Experience, and the History of Technology** (ERC Seminar 2)

Organizer: **Lino Camprubi** (Max Planck Institute for the History of Science, Germany)

Chair: **Daiwie Fu** (Yang Ming University, Taiwan)

Comment: **Daiwie Fu** (Yang Ming University, Taiwan) and **Bruno Latour** (Sciences Po, France)

Panelists:

**Lino Camprubi** (Max Planck Institute for the History of Science, Germany)

**Javier Pérez-Jara** (Beijing Foreign Studies University, China)

**Mareile Flitsch** (Völkerkunde Museum der Universität Zürich, Switzerland)

**76 - Nationalizing Technologies in Postcolonial South Asia and East Asia** (ERC Active)

Organizer: **Aparajith Ramnath** (Indian Institute of Management Kozhikode, India)

**William Logan** (Auburn University, United States): Spanning the Brahmaputra: The Indian Government, Private Industry, and the First Bridge across Assam's Great River

**Aparajith Ramnath** (Indian Institute of Management Kozhikode, India): From Post-war Reconstruction to Nation-Building: The Evolution of Technical Education Policy in India, 1938–56

**Po-Jen Bono Shih** (Virginia Tech, United States) [**Robinson Prize Candidate**], **Gary Downey** (Virginia Tech, United States), and **Kuo-Hui Chang** (National Taiwan University, Taiwan):

Industrial Education Becoming Chinese: National Identity, Political Visions and Colonial Legacy in Early Postcolonial Taiwan (1945–1949)

**Hsien-yu Chin** (Yang Ming University, Taiwan): The Cold War in Rice Cookers: Gender and Kitchen Testing in Taiwan, 1950s–1970s

**Suvobrata Sarkar** (Burdwan University, India): Development of Electricity in a Colonial Metropolis: Calcutta in the Early Twentieth Century

**77 - Oceans' Technologies** (ERC Seminar 10)

Organizer: **Hakon With Andersen** (Norwegian University of Science and Technology, Norway)

Chair: **William K. Storey** (Millsaps College, United States)

Comment: **Nil Disco** (University of Twente, Netherlands)

**Thomas Brandt** (Norwegian University of Science and Technology, Norway): Capturing the Power of the Ocean Waves: The Rise and Demise of a Research and Development Project for Ocean Wave Energy Conversion in Norway, 1970s–1990s

**Alex Grainger** (Independent Scholar, United Kingdom) [**Robinson Prize Candidate**]: Boundaries of Nature and the Nature of Boundaries: Offshore Technologies, Political Regimes, and Timor Sea Oil and Gas, 1963–1975

**Tizra Meyer** (Norwegian University of Science and Technology, Norway) and **Johan Gärdebo** (Royal Institute of Technology, Sweden): Outer Space—Ocean Space: The Common Heritage of Remote Commons

**Hakon With Andersen** (Norwegian University of Science and Technology, Norway): Wind, Waves, and Ships

**Saturday, 25 June**  
1:30 PM–3:30 PM

**78 - Nuclear Dreams in the Asia-Pacific** (ERC Seminar 3)

Sponsor: **Tembusu College**  
Organizer: **Pang Yang Hwei** (Singapore University of Technology and Design, Singapore)  
Chair: **Alan Chong** (S. Rajaratnam School of International Studies, Singapore)  
Comment: **Ellan F. Spero** (Massachusetts Institute of Technology, United States, and Singapore University of Technology and Design, Singapore)

**Kapil Patil** (Indian Pugwash Society, India): Strategic versus Scientific and Social Motivations: India's Discourse on Peaceful Nuclear Explosions During 1964–1974

**Clarissa Ai Ling Lee** (National University of Malaysia) [**Robinson Prize Candidate**]: Malaysia's Nuclear Dreams: There Was Technology, and Then There Was Science

**Loh Shilin** (Harvard University, United States): Nuclear Medicine in Japan: Imported Prospects and Human Health

**Pang Yang Hwei** (Singapore University of Technology and Design, Singapore): Revolution and Science: The Career of Qian Sanqiang

**79 - Roundtable: Technical Assistance and the History of Technology** (ERC Seminar 2)

Organizers: **John Paul DiMoia** (National University of Singapore), **Gisela Mateos** (National University of Mexico), **Maria Rentetzi** (University of Vienna, Austria), and **Edna Suárez-Díaz** (National University of Mexico)  
Chair: **Suzanne Moon** (University of Oklahoma, United States)

**Maria Rentetzi** (University of Vienna, Austria): The IAEA Technical Assistance Programs: Solving Policy Problems Through Scientific Collaboration

**John Paul DiMoia** (National University of Singapore): From “Atoms for Peace” to Building a Domestic Program: the Legacy of Radioisotopes in South Korea, 1958–1973

**Gisela Mateos** (National University of Mexico) and **Edna Suárez-Díaz** (National University of Mexico): Technical Assistance Recreations of Development: The IAEA's Mobile Radioisotope Exhibition in Latin America (1960–1965)

**Karin Zachmann** (Technische Universität München, Germany): Nuclear War against Insects: Technical Assistance Projects Promoted by the United Nations' Specialized Agencies in the Cold War Era

**80 - Infrastructures of Risk and Disaster (Part III)** (ERC Seminar 9)

Organizers: **Yeonsil Kang** (Korea Advanced Institute of Science and Technology, South Korea) and **Scott Gabriel Knowles** (Drexel University, United States)

Comment: **Kim Fortun** (Rensselaer Polytechnic Institute, United States), **Scott Gabriel Knowles** (Drexel University, United States), and **Lee Vinsel** (Stevens Institute of Technology, United States)

**Greg Lusk** (University of Chicago, United States) [**Robinson Prize Candidate**]: Can We Blame the Weather? The Emergence of Extreme Weather Attribution Technology  
**Susan Sterett** (Virginia Tech, United States): Legal Engagement and Practices of Assistance  
**Tyson Vaughan** (National University of Singapore) [**Robinson Prize Candidate**]: Re-mooring After Disaster: Re-thinking the Infrastructural Constitution of Community

**81 - Rethinking Reproductive Technologies and Modernities: Pregnancy, Childbirth, and Reproduction in East Asian Societies, 1800s–2000s (Part II)** (ERC Seminar 11)

Organizers: **Suzanne Gottschang** (Smith College, United States) and **Gonçalo Santos** (University of Hong Kong)

Comment: **Francesca Bray** (University of Edinburgh, United Kingdom)

**Jianfeng Zhu** (Fudan University, China): Understanding the Cradle Project: Fetal Education, Modern Cerebral Science, and Traditional TCM Practice in Contemporary China  
**Gonçalo Santos** (University of Hong Kong): Birthing Dramas and Generational Narratives: The Medicalization of Childbirth in Rural South China, 1960s–2010s  
**Suzanne Gottschang** (Smith College, United States): Medicalizing Childbirth and Risk in China  
**Chen-I Kuan** (Yang Ming University, Taiwan): The Limits of Technology in Childbirth: Who Pays the Price?

**82 - Infrastructures of Planning in South Korea and Japan: The Global Origins of Developmentalism** (ERC Seminar 1)

Organizer and chair: **Aaron S. Moore** (Arizona State University, United States)

Comment: **Hyungsub Choi** (Seoul National University of Science and Technology, South Korea)

**Juyoung Lee** (Science and Technology Policy Institute, South Korea) [**Robinson Prize Candidate**]: The Practice of Planning in South Korea's First Comprehensive National Physical Development Plan, 1963–1972

**Dong-Wan Gimm** (Seoul National University, South Korea): Scalar Politics and Technological Innovation: The Case Study of the Ulsan Refinery Plant

**Yamane Nobuhiro** (Waseda University, Japan): The Deployment of Developmentalism in Postwar Japan—Its Historical Processes and Dual Contexts

**Aaron S. Moore** (Arizona State University, United States): From Colonial “Asian Construction” to Post-Colonial “Economic Cooperation”: Japanese Engineering Consultants and the Development of South Korea's Hydropower Infrastructure

**83 - Game History and the Local II: Global / Local Tensions in Spain, South Korea, and Sweden** (ERC Seminar 8)

Organizer: **Benjamin Nicoll** (University of Melbourne, Australia)

Chair: **Melanie Swalwell** (Flinders University, Australia)

**Ignasi Meda-Calvet** (Autonomous University of Barcelona, Spain): Microhobby: Remote Meetings for Sinclair Users in a Spanish Magazine in the 80s

**Benjamin Nicoll** (University of Melbourne, Australia) [**Robinson Prize Candidate**]:

Bootlegging as Productive Ambiguity: The Zemmex and the South Korean Videogame Industry, 1985–1992

**Kijun Yun** (Korea Advanced Institute of Science and Technology, South Korea): The Mosaic City: Dreams and Realities of Pangyo Techno Valley

**Ulf Sandqvist** (Umeå University, Sweden): Then the Stars Align: The Formation of the Swedish Game Industry

**84 - Regimes of Risk in the Global South: Energy and Techno-Politics** (SRC Seminar 5)

Organizer: **Katayoun Shafiee** (National University of Singapore)

Chair: **Daniel Wilford** (University of Michigan, United States)

Comment: **Sulfikar Amir** (Nanyang Technological University, Singapore)

**Katayoun Shafiee** (National University of Singapore): TVA Experiment in Iran: Calculating the Hydro-Politics of Risk in the Building of the Dez Dam, 1955–1979

**Daniel Wilford** (University of Michigan, United States): Fragile Forms: Mapping and Managing Seismic Risk in Post-Colonial Morocco

**Pratama Yudha Pradhaksa** (Virginia Tech, United States): The Social Construction of Risk and Islamic Activism: A Discourse Analysis of Indonesia's Anti-Nuclear Movement

**Seung Hee Cho** (Korea Advanced Institute of Science and Technology, South Korea): Risk in Climate and Radiation: Citizen Participation in Risk Measurement and Solar Energy Production

**85 - Re-Inventing the Human Scale: Science, Technology, and Global Climate Change**  
(ERC Active)

Organizer: **Matthias Heymann** (Aarhus University, Denmark) and **Dania Achermann** (Aarhus University, Denmark)

Chair: **Matthias Heymann** (Aarhus University, Denmark)

**Dania Achermann** (Aarhus University, Denmark): Drilling Deep and Back in Time: Ice-Core Research and Global Climate Knowledge

**Melissa Charenko** (University of Wisconsin–Madison) [**Robinson Prize Candidate**]:

Re-Scaling Proxy Data to Answer Questions about Anthropogenic Change

**Nina Wormbs** (Royal Institute of Technology, Sweden): Ground Truthing Remote Sensing: Getting the Global “Cold Facts” Right

**Sabine Höhler** (Royal Institute of Technology, Sweden): Local Weather Event, Global Climate Condition: Satellite Translations of El Niño

**86 - Long-Term Impacts of Joseph Needham's Science and Civilization in China on the History of Technology III: Explorations of Asian / East Asian Technology since Needham**  
(SRC Global)

Organizers: **Philip C. Brown** (The Ohio State University, United States) and **Carl Mitcham** (Colorado School of Mines, United States)

**Bei-zhi Yin** (China Agricultural University, China): Western Water Conservancy Experts Working in China and Co-operation with Chinese in Modern History

**Dian Zeng** (Tsinghua University, China) and **Wei Hong** (Tsinghua University, China): Master of the Night: Destiny of A Profession under Technological Changes

**Darwin Stapleton** (Hermann J. Albrecht Library of Historical Architecture, United States): Biomedical Education, Public Health Technology, and the Origin of the “Barefoot Doctors” at Ding Xian, 1928–1938

**Eunjeong Ma** (Pohang University of Science and Technology, South Korea): Reformulating Herbal Medicines in South Korea

**87 - Deus ex Machina? Rethinking the Concept of the Machine in the History of Technology**

Sponsor: **Asia Research Institute** (ERC Seminar 10)

Organizer: **Martina Schlünder** (University of Toronto, Canada)

Chair and comment: **Lisa Onaga** (Nanyang Technological University, Singapore)

**Martina Siebert** (Berlin State Library, Germany / Independent scholar): The Qing Palace-Machine and the Growing and Organizing of Lotus

**Martina Schlünder** (University of Toronto, Canada): From Labs to Biopolitics: Exploring the Scale and Scope of Birthing Machines

**Honghong Tinn** (Earlham College, United States): Between “Magnificent Machine” and “Elusive Device”: Wassily Leontief’s Input-output Analysis and its International Applicability

**Gayathri Haridas** (Nanyang Technological University, Singapore) [**Robinson Prize Candidate**]: The Politics of Innovation in Singapore: Exploring the Machinery of the National System of Innovation

**88 - There, and Back Again: Asian Perspectives on East-West Technology Transfers in the Late 20<sup>th</sup> Century** (ERC Global)

Organizer: **Alexander B. Magoun** (IEEE History Center, United States)

Chair: **Kenzo Okuda** (Independent Scholar, Japan)

Comment: **Jonathan Coopersmith** (Texas A&M University, United States)

**Junbin Su** (Xiamen University, China): Technology and Politics: China’s Adoption of the PAL Color Television System in the 1970s

**Mila Davids** (Eindhoven University of Technology, Netherlands): There and Back Again: Taiwanese Perspectives of East-West High Tech Transfer, 1960s–2010

**Jorijn van Duijn** (Maastricht University, Netherlands) [**Robinson Prize Candidate**]: Breaking Barriers in the Asian Semiconductor Equipment Industry: ASM Pacific Technology and the Development of a Gold Wire Bonder, 1995–2000

**Irene Anastasiadou** (Technische Universität Berlin, Germany): The Southern Trans Asian Railway: A Global Project in the Cold War

**89 - Colonial Legacies of Technological Development in Asia, from the Age of Imperialism to the Cold War** (ERC Seminar 4)

Organizer: **Leow Wei Yi** (National University of Singapore)

Comment: **Kuang-Chi Hung** (National Taiwan University, Taiwan)

**Po-Yi Hung** (National Taiwan University, Taiwan): Political Technology of Fruits: Mountain Agriculture and the Politics of Territorialization in Taiwan

**Lijing Jiang** (Nanyang Technological University, Singapore): Ideology and Economics of Aquaculture Technology in China, Taiwan, and Philippines during the Cold War: A Comparative View

**Nadin Heé** (Freie Universität Berlin and Max Planck Institute for the History of Science, Germany): Japan's Maritime Empire Reemerging? Technology Transfer in Fisheries during the Cold War in Asia

**Leow Wei Yi** (National University of Singapore): Two Phases of Colonial Science in British Malaya: From the 1850s to the 1920s

**Sunday, 26 June**  
9:00 AM–10:30 AM

*All-SIG Plenary: Engineering in Asia* (SRC NAK Auditorium, UTown)

Moderator: **Stuart W. Leslie** (Johns Hopkins University, United States)

**Prometheans** (Engineering SIG) — **Ann Johnson** (Cornell University, United States): Ethics, Engineering, and the History of Development in South Asia

**TEMSIG** (Technology Museums SIG) — **John DiMoia** (National University of Singapore): Science and Technology Museums in South Korea and Singapore

**SIGCIS** (SIG on Computers, Information, and Society) — **Chigusa Kita** (Kansai University): Asian Histories of Computing

**SMiTing** (Military Technology SIG) — **Dimitrios Ziakkas** (Retired Major Pilot, Hellenic Air Force, Greece): The Japanese Phantom F-4 Aircraft: Cold War Technology Transfer in the Pacific Region

**Sunday, 26 June**  
11:00 AM–1:00 PM

*EDITH Meeting* (ERC Seminar 4, UTown)

*Prometheans Meeting* (ERC Global, UTown)

*WITH Meeting* (ERC Seminar 8, UTown)

*Albatrosses Meeting* (ERC Active, UTown)

**Sunday, 26 June**  
11:00 AM–5:00 PM

*SIGCIS Meeting* (ERC Seminar 2 and ERC Seminar 3, UTown)

**Sunday, 26 June**  
2:00 PM–5:00 PM

*Prometheans–WITH Joint Meeting* (ERC Global, UTown)