



Keigo Akimoto

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Keigo Akimoto received Ph.D. degree from Yokohama National University in 1999. He joined RITE in 1999, and in 2012 became the Leader of the Group and a chief researcher at RITE. He was a guest professor, Graduate School of Arts and Sciences, the University of Tokyo between 2010 and 2014, and a Lead Author for the Fifth and Sixth Assessment Report of IPCC. His scientific interests are in modeling and analysis of energy and environment systems.

He is a member for several advisory bodies on energy and environmental policy for Japanese government including:

- Strategic Policy Committee of Advisory Committee in Natural Resources and Energy
- Subcommittee on 2050 Study of next-generation energy supply and demand structure in view of carbon neutral, Strategic Policy Committee of Advisory Committee in Natural Resources and Energy
- Power Generation Cost Verification Working Group, Strategic Policy Committee of Advisory Committee in Natural Resources and Energy
- Strategic Policy Subcommittee on Electricity and Gas Industry, Electricity and Gas Industry Committee of Advisory Committee in Natural Resources and Energy (Deputy Chair)
- Subcommittee of Hydrogen policy on Energy Saving and New Energy in Advisory Committee for Natural Resources and Energy
- Subcommittee of Decarbonating fuel policy such as ammonia on Resource fuel sub-division in Advisory Committee for Natural Resources and Energy
- Procurement Price Calculation Committee of METI (Deputy Chair)
- Transition Finance Environment Improvement Study Group of METI
- Taskforce for Formulating Roadmaps for Promoting Transition Finance in METI (Chair)
- Climate change impact subcommittee in Central Environment Council

He also serves on advisory bodies for Osaka prefecture, Japan Association for the 2025 World Exposition, Organization for Cross-regional Coordination of Transmission Operators (OCCTO), and others.

- About: <https://www.rite.or.jp/system/en/members/akimoto.html>
- Suggested Reading: <https://www.rite.or.jp/system/en/system-group-papers/>



Soumen Maity

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Dr. Soumen Maity is the Chief Technical Officer, TARA. He is a Material Scientist by profession and currently leads the Technology Management business at TARA. Soumen is with TARA over a decade anchoring the interface between innovation and business. At one hand he guides and mentors the Clean Technology systems at the Development Alternatives Group, on the other, he also leads the incubation of developed technologies at TARA. His expertise lies in the building material sector wherein he has been instrumental in exploring commercial approaches to utilization of industrial waste, improving energy efficiency and reducing environmental emissions.

He was instrumental in shaping the VSBK programme (technical) from a firing technology to an entire brick production system encompassing soil selection, testing and suitability for use in VSBK technology. Science of soil behaviour in short cycle firing (VSBK) and engineering of green brick mixes for optimum quality in VSBK. He undertook feasibility studies for introduction of cleaner brick production practices in Nepal, Afghanistan, Vietnam, Indonesia and Bangladesh. At present he is advising Government of Bangladesh and introducing cleaner brick production practices and technologies for improvement of environment quality throughout Bangladesh. Developed local expertise and networking capabilities for technology anchoring and dissemination.

- About: <https://www.tara.in/Our-People.aspx>, <https://lc3.ch/>
- Suggested Reading: Bishnoi, S., Maity, S., Mallik, A., Joseph, S., & Krishnan, S. (2014). Pilot scale manufacture of limestone calcined clay cement: the Indian experience. Indian Concr. J, 88(6), 22-28.



David McCollum

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Dr. David L. McCollum is a Senior R&D Staff in the Mobility and Energy Transitions Analysis (META) Group at Oak Ridge National Laboratory, with expertise spanning economics, engineering, policy analysis, and corporate advisory services. His research informs state, national (developed and developing) and global energy and environmental issues on matters related to, among others, deep decarbonization, net-zero emissions pathways, energy-transport-climate policies, electric sector planning, end-use sector electrification (transport, buildings, industry), Sustainable Development Goals (including inter-dependencies), financing needs for the energy system transformation, and human dimensions of climate change. He employs energy-economic systems and integrated assessment models in support of this work (e.g., MESSAGEix-GLOBIOM, TIMES-MARKAL, REGEN, GCAM).

Before joining ORNL in September 2021, David was a Senior Research Scholar with the Energy Program at the International Institute for Applied Systems Analysis (IIASA) in Laxenburg, Austria, and a Principal Technical Leader at the Electric Power Research Institute (EPRI) in Palo Alto, California. He currently holds secondary appointments as Guest Senior Research Scholar at IIASA; Research Fellow in Energy and Environment at the Howard H. Baker Jr. Center for Public Policy at the University of Tennessee; and Honorary Senior Research Fellow at Imperial College London. The latter is in his capacity with the Intergovernmental Panel on Climate Change (IPCC) Technical Support Unit (TSU - Working Group III) for the Sixth Assessment Report (AR6). David previously led activities within the Global Energy Assessment; IPCC Fifth Assessment Report (AR5 - WG III); IPCC Special Report on Global Warming of 1.5 °C; and other international, multi-stakeholder initiatives, such as for the World Bank and International Council for Science (ICSU).

David received a PhD and MS in Transportation Technology & Policy from the University of California, Davis (USA), Institute of Transportation Studies; an MS in Agricultural & Resource Economics from the same institution; and a BS in Chemical Engineering from the University of Tennessee (USA).

- About: <https://www.ornl.gov/staff-profile/david-l-mccollum>
- Suggested Reading: https://scholar.google.com/citations?hl=en&user=LjmiTtQAAAAJ&view_op=list_works&sortby=pubdate
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Nebojsa Nakicenovic



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Nebojsa Nakicenovic is currently an Emeritus Research Scholar, formerly Deputy Director General/CEO of IIASA, and former tenured Professor of Energy Economics at Vienna University of Technology (TU Wien).

Among other positions, Prof. Nakicenovic is the Executive Director of The World in 2050 (TWI2050); Member Ad Hoc Informal Multi-stakeholder Technical Group of Advisors on Sustainable Development Goal 7, United Nations; Member of the Scientific Advisory Board of the German Aerospace Center (DLR) Institute for Networked Energy Systems Analysis; Member of the Scientific Advisory Board of the Potsdam Institute for Climate Impact Research (PIK); Member of the Scientific Advisory Board of the Fondazione Eni Enrico Mattei (FEEM); Member of the Panel on Socioeconomic Scenarios for Climate Change Impact and Response Assessments; Steering Committee Member of the Renewable Energy Policy Network for the 21st Century (REN21); Member of the International Academy for Systems and Cybernetic Sciences; Member of the International Advisory Board of the Helmholtz Programme on Technology, and Member of OMV Advisory Group on Sustainability.

He is Editorial Board Member of the following journals: Climate Policy; Current Opinion in Environmental Sustainability; Energy, Ecology and Environment; Energy Policy; Environmental Innovation and Societal Transitions; Energy Strategy Reviews; Global Perspectives; and Technological Forecasting and Social Change.

Prof. Nakicenovic holds bachelors and master's degrees in economics and computer science from Princeton University, New Jersey, USA and the University of Vienna, where he also completed his PhD. He also holds Honoris Causa PhD degree in engineering from the Russian Academy of Sciences.

Among Prof. Nakicenovic's research interests are the long-term patterns of technological change, economic development and response to climate change and, in particular, the evolution of energy, mobility, and information and communication technologies.

- About: <https://iiasa.ac.at/staff/nebojsa-nakicenovic>
- Suggested Reading: <https://pure.iiasa.ac.at/view/iiasa/214.html>



Kewyan Riahi

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Kewyan Riahi is the Director of the Energy, Climate and Environment ([ECE](#)) Program at the [IIASA](#). In addition, he is a Visiting Professor of Energy Systems Analysis at the Graz University of Technology and serves as an External Faculty Member at the Institute for Advanced Study ([IAS](#)) at the University of Amsterdam.

In 2021, Mr Riahi was ranked first by Reuters as the most [influential climate scientist](#) worldwide and he was also recognized by Clarivate as one of 23 researchers worldwide in the list of [Highly Cited Researchers](#) in three categories (Geosciences; Social Sciences; and Environment and Ecology).

He was appointed to the [European Scientific Advisory Board on Climate Change](#), providing scientific advice to underpin the climate policies in the EU, and was appointed by UN Secretary General Guterres to the [10-Member Group](#) to advise the UN on the Technology Facilitation Mechanism for the implementation of the Agenda 2030. In addition, he serves on the [Scientific Advisory Board of the City of Vienna](#).

He received the prestigious European Research Council (ERC) [Synergy](#) Grant for the [GENIE](#) Project, focusing on new methods and technologies for carbon dioxide removal from the atmosphere. His key scientific achievements comprise the coordination and development of the so-called Representative Concentration Pathways ([RCPs](#)) and the Shared Socioeconomic pathways ([SSPs](#)), which have facilitated the integrated analysis of climate change response options across the entire scientific community. He plays a leading role in the scientific community as a member of the Scientific Steering Committee of the Integrated Assessment Modeling Consortium ([IAMC](#)) and the International Committee on New Integrated Climate Change Assessment Scenarios ([ICONICS](#)), where he is responsible for the coordination and co-design of flagship research activities across the research community.

He has been appointed to the [Earth Commission Working Group I](#) on the Earth and Human System Modelling Inter-comparison Project ([EHSMIP](#)) and also serves as the Coordinating Lead Author in Working Group III of the IPCC Sixth Assessment Report ([AR6, Chapter 3](#) on Mitigation pathways compatible with long-term goals).

Additional scientific highlights include serving as Lead Author to various international assessments, such as the Global Energy Assessment ([GEA](#)), The World in 2050 ([TWI2050](#)), and various [IPCC](#) reports, including the IPCC's [Third](#), [Fourth](#), and [Fifth](#) Assessment Reports, as well as the IPCC Special Report on Emissions Scenarios ([SRES](#)), the IPCC Special Report on CO₂ Capture and Storage ([SRCCS](#)), and as review editor on the IPCC Special Report on Renewable Energy ([SRREN](#)).

- About: <https://iiasa.ac.at/staff/keywan-riahi>
- Suggested Reading: <http://pure.iiasa.ac.at/view/iiasa/250.html>



Joyashree Roy

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Joyashree Roy is the Founder Director of the Centre on South and South East Asia **Multidisciplinary Applied Research Network on Transforming Societies of Global South** and the inaugural Bangabandhu Chair Professor at SERD/AIT, Thailand. She is also a Professor of Economics in Jadavpur University, India. She is a national fellow of the Indian Council of Social Sciences Research (ICSSR). She is the Founding advisor of the two multi-year projects at Jadavpur University. She was Ford Foundation Post Doctoral Fellow at LBNL, Berkeley, USA. She is the recipient of 2021 Paradigm award of The Breakthrough Institute, USA. She was in IPCC-2007 Nobel Peace Prize winning panel and continued as Coordinating Lead Author in Fifth and Sixth assessment cycles of WGIII of IPCC. She has been a chapter author of Global Energy Assessment, has been associated with the Stern Review Report and many other global and National, Subnational Reports. She is in the winning team of 2012 Prince Sultan Bin Aziz creativity award for water. She has published more than 160 peer reviewed journal articles, authored and edited books. She is in the Steering/advisory committee of several national and International science-policy interactive platforms and in editorial boards of many international journals. Her research interests are: Resource and Environmental Economics, Economics of Pollution and Climate Change, Modelling industrial and other sectoral energy demand, Economy-wide modelling exercises for deriving policy implications, Water quality demand modelling, Water, Energy, Carbon pricing, Sustainable development, Natural resource accounting, Valuing environmental services, Developmental and environmental issues relevant for informal sectors, Coastal Ecosystem service evaluation. She features in the documentary [*Juice: How Electricity Explains the World*](#) which explains among other things how developing countries are trying to bring people out of the dark and to the lights and transforming lives.

- About: <https://www.bangabandhu-chair-ait.org/>
<https://www.researchgate.net/profile/Joyashree-Roy>
<https://www.linkedin.com/in/joyashree-roy-716722182/>
- Suggested Reading: Roy, J., Some, S., Das, N., & Pathak, M. (2021). Demand side climate change mitigation actions and SDGs: literature review with systematic evidence search. Environmental Research Letters 16 043003. DOI <https://doi.org/10.1088/1748-9326/abd81a>



Karen Scrivener

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Director of the Laboratory of Construction Materials and Full Professor at Ecole Polytechnique Fédérale de Lausanne, Karen Scrivener works at the interface between academic research and industrial applications in the cement industry. Her academic studies of microscopic structure have considerably advanced the understanding of the behaviour of cementitious materials, in particular with regard to the deterioration of concrete. She is a founder of the Nanocem network, which in ten years has grown to include 11 industrial partners and 22 academic partners. This partnership, the only one of its kind, has transformed the landscape of research into cement matter and materials. The publications of Prof. Scrivener are frequently cited, amounting to an H-index of 26. Her work has already been recognised with several prizes including the prize and the Della Roy Lecture Award from the American Ceramic Society. Karen Scrivener has been elected as a Fellow of the Royal Academy of Engineering for her remarkable contribution to the domain of engineering. She is one of 59 scientists to be honoured in 2014.

- About: <https://people.epfl.ch/karen.scrivener>
- Suggested Reading: Antoni, M., Rossen, J., Martirena, F., & Scrivener, K. (2012). Cement substitution by a combination of metakaolin and limestone. *Cement & concrete research*, 42(12), 1579-1589.



Nan Zhou

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Dr. Zhou is a Senior Scientist at Lawrence Berkeley National Laboratory. She has led many international programs at LBNL on energy efficiency and greenhouse gas mitigation, often focused on China. Dr. Zhou is currently the Technical Program Manager for the Net Zero World Action Center, an initiative launched by the U.S. government to work with countries to implement their climate ambition pledges and accelerate transitions to net zero, resilient, and inclusive energy systems. In addition, Dr. Zhou is a Lead Author of the chapter on Mitigation and Development Pathways of the recently-released Intergovernmental Panel on Climate Change (IPCC) Working Group III Sixth Assessment Report on Mitigation of Climate Change. Dr. Zhou is a co-chair of the Academic Advisory Committee of California-China Climate Institute and a Senior Scholar at the Renewable and Appropriate Energy Laboratory at the University of California-Berkeley. Dr. Zhou is one of the two U.S.-designated Advisory Board Members of the Asia Pacific Energy Research Centre under the Asia Pacific Economic Cooperation (APEC) and a Council member for Global Future Council of the World Economic Forum. Dr. Zhou served as the Deputy Director (2010-2012) and the Director (2012-2021) of the \$100M presidential bilateral U.S.-China Clean Energy Center-Building Energy Efficiency (CERC-BEE) program.

As the U.S. Director of CERC-BEE, Dr. Zhou led the team involving many researchers from different national laboratories (Lawrence Berkeley National Laboratory, Oak Ridge National Laboratory), universities (Massachusetts Institute of Technology, University of California Davis), and industry partners such as Dow Chemical, DuPont, BASF, Johnson Controls, and Schneider. Under her leadership of this complex, dynamic program, the team has had notable achievements in building energy efficiency and the construction industry and has earned awards for numerous technological breakthroughs and innovations. The team has produced 17 new products, 20 new copyrighted software tools, and 84 peer-reviewed publications to advance building energy performance. The team has been awarded R&D 100 Awards in 2013 and 2016, a 2016 Gold Edison Award, a 2018 Best of Design Award for Digital Fabrication, and a 2019 Keeling Curve Prize Honorable Mention.

Dr. Zhou's expertise includes integrated energy system and emission modeling, energy efficiency for end use sectors in buildings, appliances, industry and transport; and on microgrids/distributed energy resources as well as low carbon/smart city development. Prior to LBNL, she was an assistant professor in two universities in Japan for four years. She has more than 280 publications, including ones published in Nature Energy and Nature Communications.

- About: <https://eta.lbl.gov/people/nan-zhou>