18 Apr 2024 / Day 1, National Library of Iran, Tehran

**Conference SCHEDULE**

**Quran Recitation & National Anthem**
7:30 – 8:30

**Welcoming Remarks**
by Prof. Sayed Abbas Mousavi, Honorary Chairman of ICERS2024
8:35 – 8:40

**Opening Remarks - 2**
by Dr. Stefan Priesser, UN Resident Coordinator for I.R. Iran
8:50 – 9:00

**Introduction to ICERS2024**
by Prof. Mahdi Abdipour, Head of Scientific and Executive Committee ICERS2024
9:10 – 9:15

**Break**
9:25 – 9:40

**Registration**
8:30 – 8:35

**SUT Clip**
8:40 – 8:50

**Opening Remarks - 1 (TBD)**
9:00 – 9:10

**ICERS2024 Clip**
9:15 – 9:25

**Keynote Speaker**
9:40 – 10:00

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**10:00 – 12:00**

**“Energy Policy and Planning”**

**Panel Coordinator:** Prof. Janos Bogardi
(Ex. Vice Rector of United Nations University in Europe, Ludovika University of Public Service, Hungary)

**Panelists:**
- Prof. Janos Bogardi
- Prof. Abbas Maleki, Energy Department, SUT
- Prof. Hassan Badkobehi, National University, San Diego, California
- Prof. Hashem Oraee, President of Iran Energy Associations Syndicate
- Representative of the Ministry of Energy of Iran

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**13:30 – 15:30**

**“Energy Governance and Management”**

**Panel Coordinator:** Prof. Reza Ardakanian
(Founding Director of United Nations University Institute of Integrated Management of Material Fluxes and Resources (UNU-FLORES))

**Panelists:**
- Prof. Reza Ardakanian
- Prof. Nadejda Komendantova, Cooperation and Transformative Governance Group Leader at International Institute for Applied Systems Analysis (IIASA)
- Prof. Ali Akbar Matkan, Secretary General of the UNESCO National Commission, Iran OPEC Representative (TBD)
- Representative of the Ministry of Petroleum of Iran
- Prof. Majid Amidpour, President of Niroo Research Institute

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**16:00 – 18:00**

**“Emerging Technologies and Industries”**

**Panel Coordinator:** Prof. Bahram Taheri
(Amirkabir University of Technology, Iran)

**Panelists:**
- Prof. Bahram Taheri
- Dr. Maryam Javan shahraki, UNIDO Representative in Iran
- Prof. Seyed Moslem Mousavi Dorcheh, Chief Executive Officer at Iran Renewable Energy Association (IrREA)
- Prof. Nikolay Bobylev, St. Petersburg State University, Russia
- Prof. Azim Kalantari Asl, Head, Research Institute of Petroleum Industry, Iran
- Representative of Ministry of Industry, Mine and Trade, Iran
**Conference Schedule**

**International Conference on Energy Resilience, and Sustainability (ICERS2024)**

19 Apr 2024 / Day II, National Library of Iran, Tehran

- **7:30 – 8:00**: Reports of Coordinators (Day I)
- **8:00 – 8:20**: Registration
- **8:20 – 10:00**: "Energy Financing and Investment"
  - Panel Coordinator: Prof. Alinaghi Mashayekhi (Professor of Management, SUT)
  - Panelists:
    - Prof. Alinaghi Mashayekhi, Professor of Management, SUT
    - TBD
    - Prof. Amadou Thierno Gaye, Former Director General of Research and Innovation at Senegal Ministry of Higher education, research and innovation
    - Prof. Majid Ghassemi, Chief Executive Officer of Bank of Pasargad, Iran
    - Representative of Plan and Budget Organization, Iran

- **10:30 – 12:30**: "Energy and Environment"
  - Panel Coordinator: Prof. Majid Abbaspour (Board Member of Sharif Energy, Water and Environment Institute, SUT)
  - Panelists:
    - Prof. Majid Abbaspour
    - Prof. Saad Mekhilef, Director of Power Electronics and Renewable Energy Research Laboratory, University of Malaya, Malaysia
    - Prof. Reza Maknoon, The Academy of Sciences, Iran
    - Prof. Nadejda Komendartsova, Cooperation and Transformative Governance Group Leader at International Institute for Applied System Analysis (IIASA)
    - Representative of Department of Environment, Iran

- **14:00–16:00**: "Energy Security"
  - Panel Coordinator: Prof. Seyed Komail Tayebi (Science Foundation of ECO)
  - Panelists:
    - Prof. Seyed Komail Tayebi
    - Prof. Brian Norton, Vice-President of European Academies Science Advisory Council, Ireland
    - Prof. Naser Bagheri Moghaddam, Energy Commission, Supreme Council of Science, Research and Technology of Iran
    - Prof. Ali Akbar Salehi, Ex. Ministry of Foreign Affairs of Iran
    - Mr. Hamid Chitchian, Ex. Minister of Energy of Iran
    - Representative of the Ministry of Foreign Affairs of Iran

- **18:30 – 19:00**: Reports of Coordinators (Day II)
- **19:00 – 19:30**: Wrap up & Closing
Conference SCHEDULE

Internationa Conference on Energy Resilience, and Sustainability (ICERS2024)

19 Apr 2024 / Day II, National Library of Iran, Tehran

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Break

16:30 – 18:30

“Energy Resources”

Panel Coordinator: Prof. Brian Norton
(Vice-President, Science Advisory Council of European Academies, Ireland)

Panelists:
- Prof. Brian Norton
- Prof. Halil Hasar, Directorate of Climate Change at Ministry of Environment, Urbanization and Climate Change, Turkey
- Prof. Ali Akbar Salehi, Ex. Ministry of Foreign Affairs of Iran
- Prof. Amadou Thierno Gaye, Former Director General of Research and Innovation at Senegal Ministry of Higher education, research and innovation
- Representative of Atomic Energy Organization, Iran
21 Apr 2024 / Day IV, Prof. Rabiee Auditorium, Sharif University of Technology

**Oral Presentations**

8:20 - 8:40
- **Title**: Energy Policy in Iran: The proper path to the clean energies
- **Presenter**: Prof. Abbas Maleki

8:40 - 9:00
- **Title**: Russia’s Cyber Security Policy for Atomic Energy Sector
- **Presenter**: Prof. Radomir Bolgov

9:00 - 9:20
- **Title**: Energy Conservation and Sustainability Methodology to predict the alternative future Iranian Energy
- **Presenter**: Prof. Hassan Badkoobehi

9:20 - 9:40
- **Title**: Greenhouse gas inventories on disturbed peatlands as part of the Carbon Supersite Programme in the Russian sector of the Baltic Region
- **Presenter**: Prof. Maxim Napreenko Dr. Leyla Bashirova

9:40 - 10:00
- **Title**: The Main Research Directions of the Consortium “Global Earth Changes: Climate, Ecology, and Quality of Life”
- **Presenter**: Prof. Victor Dyomin

**Break**

10:00 - 10:20

**Poster Presentations**

8:20 - 8:40
- **Title**: Specialists Training 4.0 for Sustainable Development Goals
- **Presenter**: Prof. Svetlana Kuzmina

8:40 - 9:00
- **Title**: Developing a PESTLE based model for the Factors that Drive Implementation of Synergistic Energy Solutions in the Middle East
- **Presenter**: Maryam A. Boroojerdi

9:00 - 9:20
- **Title**: Leveraging Natural Gas for Enhanced Energy Security: A Comprehensive Analysis of Iran's Role in the Global Energy Landscape
- **Presenter**: Parinaz Soleimani

9:20 - 9:40
- **Title**: Integrated Resource Management in the Wake of Climate Change: A Nexus Approach for Water, Food, and Energy Security
- **Presenter**: Hamidreza Esmaeilnejad

9:40 - 10:00
- **Presenter**: AmirArdalan Amiri
International Conference on Energy Resilience and Sustainability (ICERS2024)

21 Apr 2024 / Day IV, Prof. Rabiee Auditorium, Sharif University of Technology

Oral Presentations

10:00 - 10:40
Title: Presentation of Iran's Proposed MRV Model Based on National Conditions and a Comparative Study of the World's MRV Systems
Presenter: Dr. Dordaneh Aghajani

10:40 - 11:00
Title: Sequestered Carbon in the Above-Ground Phytomass of Forests Affected by Fires of Different Intensity
Presenter: Prof. Matveev Sergei

11:00 - 11:20
Title: Techno-Economic Feasibility of Underground Hydrogen Storage in Iran: A Path to Sustainable Energy Integration
Presenter: Dr. Hassan Mahani

11:20 - 11:40
Title: Techno-Economical Evaluation of Hydrogen-fueled Gas Turbines for Electricity Generation in Iran
Presenter: Dr Hossein Khajehpour

11:40 - 12:00
Title: Efficiency of geothermal energy as a renewable energy source: Energy performance of energy pile and energy diaphragm wall
Presenter: Prof. Mohammad Mahdi Ahmadi

12:00
Lunch

13:30 - 13:50
Title: Introducing a Novel Method to Produce Energy from Marine Turbines Installed on the Persian Gulf Bridge
Presenter: Dr. Reyhaneh Loni

Poster Presentations

10:20 - 10:40
Title: Corporate Social Responsibility in the Energy Management and Sustainability
Presenter: Dr. Sadaf Estanesti

10:40 - 11:00
Title: Strategic Decision-Making for Petrochemical Plants: Evaluating and Selecting Optimal Hybrid Renewable Energy Systems Through Sustainability and Resiliency Criteria
Presenter: Samaneh Habibzadeh

11:00 - 11:20
Title: Digital Transformation of Oil and Gas Companies: Energy Transition and Hydrocarbon Reduction
Presenter: Ali Dehghanchaharabi

11:20 - 11:40
Title: The Role of Energy Governance in the National Security of Oil Producing Countries
Presenter: Dr. Reyhaneh Loni

11:40 - 12:00
Title: Developing Energy Hub as a Key to Improve Energy Governance
Presenter: Dr. Reyhaneh Loni

13:30 - 13:50
Title: Investigating and Comparing the Methods of Providing Capital in the Electricity Industry (Comparing the Two Methods of Mutual Sale and Guaranteed Purchase)
Presenter: Mousa Mehdikarami
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| 13:50 - 14:10 | Title: Fault Diagnosis of Power Grid Equipment based on Artificial Intelligence with Limited Data  
Presenter: Prof. Svetlana Petrova | 13:50 - 14:10  
Title: Economic Study of the Idea of Selling the Capacity Certificate in Financing the Energy Sector  
Presenter: Mousa Mehdkarami |
| 14:10 - 14:30 | Title: Autonomous Hybrid Power Plants Based on Renewable Energy Sources for Off-Grid Rural Electrification  
Presenter: Prof. Georgii A. Konoplev | 14:10 - 14:30  
Title: Determination of Thermal Properties of Soil in Solar Greenhouses  
Presenter: Prof. Afdandil Vardiyashvili |
| 14:30 - 14:50 | Title: A Review of Vehicle-to-Grid (V2G) Technology as a Solution to Increasing Renewable Integration and Electrification  
Presenter: Prof. Mohamad Taghi Ahmadian | 14:30 - 14:50  
Title: The Global Outlook of the Renewable Energy Resources from Oceans  
Presenter: Dr. Shahnaz Bahmanyar |
| 14:50 - 15:10 | Title: Autonomous Solar Measurement System for Sustainable Solar Energy  
Presenter: Prof. Fedor A. Gubarev | 14:50 - 15:10  
Title: Design Parameters Optimization of Micro-hydro Archimedean Screw for Sustainable Energy Generation  
Presenter: Dr. Kazem Shahverdi |
| 15:10 - 15:30 | Title: An Efficient Solar Desalination System for Oil Fields, Increasing the Water Output by Modifying the Condensing Glass Surface  
Presenter: Prof. Shahab Ayatollahi | 15:10 - 15:30  
Title: Computational comparison among different biomass feedstocks  
Presenter: Vanoosheh Ghazanfari Savadkoohi |
| 15:30 - 15:50 | Title: Simultaneous supply of energy and water by rainwater harvest from the roof of the greenhouse structure with a solar panel  
Presenter: Eng. Majid Zarezadeh | 15:30 - 15:50  
Title: Optimizing Energy Efficiency in Building Sector through the Use of Solar Energy: Case Study of Daylight Control Systems  
Presenter: Ali Kangazian |
| 15:50 | **Break** | 16:10 |
21 Apr 2024 / Day IV, Prof. Rabiee Auditorium, Sharif University of Technology

**Oral Presentations**

- **16:10 - 16:30**
  *Title:* economic and environmental improvement of the simultaneous production of electricity and heat from photovoltaic panels in residential houses and small industries based on the goals of energy subsidies in Iran  
  *Presenter:* Dr. Ebrahim Gogonani

- **16:30 - 16:50**
  *Title:* A Framework for Optimizing the Environmental, Technical, and Economic Performances of Natural Gas Liquids (NGL) Recovery Process  
  *Presenter:* Dr. Abolghasem Kazemi

- **16:50 - 17:10**
  *Title:* Performance Evaluation of Hydrogen-Natural Gas Blends in Gas Turbines: a Case Study of the MAPNA MGT-75 Gas Turbine  
  *Presenter:* Dr. Ramin Haghighi Khoshkhoo

- **17:10 - 17:30**
  *Title:* Energy Supply of Natural Gas Liquefaction Process Using Renewable Energy Sources: Technical, Economic and Environmental Study  
  *Presenter:* Dr. Mehdi Sharifzade

**Poster Presentations**

- **16:10 - 16:30**
  *Title:* The Feasibility of Installing FPV on the Reservoirs of Dams in Hormozgan Province to Produce Energy and Reduce the Amount of Water Evaporation  
  *Presenter:* Majid Zarezadeh

- **16:30 - 16:50**
  *Presenter:* Hassan Bazoubandi

- **16:50 - 17:10**
  *Title:* Study of Diesel Operation on Diesel and Bioethanol-Containing Fuel  
  *Presenter:* Dr. Sobir Utaev
### Conference Schedule

**International Conference on Energy Resilience and Sustainability (ICERS2024)**

20 Apr 2024 / Day III, Prof. Rabiee Auditorium, Sharif University of Technology

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#### Title: The Concept of Sustainable Development: a Critical Analysis

**Presenter:** Prof. Janos J. Bogardi

**Goals:** The proposed TED talk, while acknowledging the importance to guide development according the principles of sustainability would highlight some problems which are related to and make the practical implementation of the concept of sustainability difficult. Some proposals which may facilitate the practical realization of the principle of sustainability will be made.

#### Title: Role of Policymaking in Accelerating the Energy Transition

**Presenter:** Prof. Halil Hasar

**Goals:** To provide the audience and attendees with the insights into the role of policymaking in the energy transition with its limitations and potential to accelerate the transition.

#### Title: Cooperation and Transformative Governance of Energy Resilience and Sustainability

**Presenter:** Prof. Nadejda Komendantova

**Goals:** To provide the audience with insights from various projects and good practices on energy resilience and sustainability with the focus on cooperation and transformative governance including cooperation models, decision support systems and good practices from various countries and regions.
Conference SCHEDULE

International Conference on Energy Resilience and Sustainability (ICERS2024)

20 Apr 2024 / Day III, Prof. Rabiee Auditorium, Sharif University of Technology

11:40 – TED Talk 4
Title: TBD
Presenter: Prof. Aliakbar Matkan
Goals: TBD

12:00 – Lunch

13:30 – TED Talk 5
Title: TBD
Presenter: Prof. Seyed Komail Tayebi
Goals: TBD

14:00 – Workshop 1
Title: Climate Change and Carbon Management Instruments (a Global Analytical Assessment of the Current and Future Trends)
Presenter: Prof. Bahram Taheri
Goals: The Workshop will touch upon:
- International Political Instruments and Local Policy Options
- Technological Nexus
- Circular and NBS Innovations and Solutions
- Economic Instruments
- National and Border Taxes
- Allowances and Carbon Markets
- Social Inclusivity and Involvement within a Just Transition,
- It will finally explore the ways in which COP 29 can be instrumental in enhancing the efficacy of instruments?
Title: Dynamic Analysis and Design Assessment of Offshore Renewable Energy Systems

Presenter: Prof. Madjid Karimirad (online)

Goals: Understanding the challenges and opportunities in offshore renewable; Being familiar with the importance of dynamic analysis in the proper design of offshore wind, floating solar, wave energy and hybrid marine platforms.

Title: Power Electronics as the Enabling Technology for a Modern Carbon Neutral Society

Presenter: Prof. Saad Mekhilef

Goals: The objectives of power electronics as an enabling technology for a modern carbon-neutral society revolve around improving energy efficiency, integrating renewable energy, supporting electrified transportation, enabling smart grids, facilitating energy storage, promoting demand response, and enhancing the electrification of various industrial processes. These objectives collectively contribute to building a sustainable and environmentally friendly energy ecosystem.

Title: Decarbonisation of Buildings

Presenter: Prof. Brian Norton

Goals: To provide an understanding of the challenges and constraints reducing the operational and embodied greenhouse gas emissions and energy particularly in existing buildings whilst maintaining the health and amenity of the building for its occupants.