



EEE-AM 2023

2023 IEEE Asia Meeting on Environment and Electrical Engineering

Accelerating the Energy Transition

National Convention Center, 57 Pham Hung Road, Me Tri, Nam Tu Liem, Hanoi - VIETNAM

From 13th to 15th November 2023

Conference Record Number #58328

Website <https://ieeeteeam.eeup.edu.vn/index.html> and <https://www.eeeteeam.net/EEE-AM/>

IMPORTANT DATES

April 15 th , 2023	SESSION Proposal
June 30 th , 2023	SESSION Acceptance Notification
May 1 st 2023	FULL PAPER Preliminary Submission Open
October 10 th 2023	FULL PAPER Preliminary Submission Close (EXTENDED)
October 20 st 2023	FULL PAPER Acceptance Notification (EXTENDED)
October 31 st 2023	FINAL FULL PAPER Submission (EXTENDED)

EARLY-BIRD REGISTRATION Until OCTOBER 31st 2023

LATE REGISTRATION From NOVEMBER 1st 2023

The Asia Meeting on Environment and Electrical Engineering (EEE-AM 2023) is part of the established annual International Conference on Environment and Electrical Engineering (IEEE EEEIC) series and will be organized for the first time in Asia in the beautiful and dynamic city of Hanoi, Vietnam, during 13th to 15th of November 2023. This year's Asia edition of the Conference will focus on the theme "*Accelerating the Energy Transition*" and will serve as an international forum for the exchange of research, innovations, and development in energy and power systems. The ever-increasing environmental concerns and the intensive international efforts to reduce emissions of greenhouse gases stimulate involved stakeholders to offer their best contributions to accelerate the global energy transition. EEE-AM 2023 provides a unique opportunity for academic researchers to interact with experts from industrial manufacturers and energy utilities and to discuss a wide range of topics related to energy systems and environmental issues. This forum highlights values from cross-continental collaborations in enabling renewable energy diversification and sustainable development.

2023 EEE-AM is technically co-sponsored by IEEE and EMCS and PES, and fully sponsored by IAS. Accepted and presented papers are submitted to IEEE Xplore and will also be submitted for indexing through INSPEC®, EI's engineering information index, COMPENDEX®, and ISI Thomson's scientific and technical proceedings®, ISTP®/ISI proceedings. The Conference proceedings will be indexed by Scopus. Accepted and presented papers will be considered for IEEE Transactions on Industrial Applications.

01. SOURCES AND STORAGE

- + Solar, hydro, and wind energy
- + Photovoltaic cell technology
- + Biomass and biofuels
- + Hydrogen
- + Nuclear energy
- + Battery, supercapacitors
- + Innovative devices for energy storage
- + High-performance cogeneration
- + Renewable sources within microgrids

02. POWER SYSTEMS AND SMART GRIDS

- + Advanced solutions for grid flexibility
- + RAM (reliability, availability, maintainability)
- + Digital Twin
- + ICT for power systems, interoperability, cybersecurity
- + Distributed control
- + Real time simulations (OPAL-RT)
- + Transient simulations (EMT)

07. POWER ELECTRONICS

- + Converters and components
- + HVDC, MVDC
- + Electrical generators
- + Power quality
- + Harmonic and interharmonic distortion

08. REGULATION AND ELECTRICITY MARKETS

- + Utility deregulation
- + Regulatory issues and delivery standards
- + Dispatching in power systems
- + Generation and transmission expansion
- + Distributed generation and distribution system

09. GREEN MOBILITY

- + Sustainable transport systems
- + Electrical vehicles
- + Power electronics for green mobility
- + Smart charging

10. SAFETY AND DIAGNOSTIC



03. ENERGY MANAGEMENT AND DISPATCHING

- + Cyber-physical Energy system and multi energy systems
- + Demand side management, load forecasting
- + Energy efficiency, conservation and savings
- + Supervisory control and data acquisition systems
- + Users aggregation and virtual power plant

04. SMART ENVIRONMENTS

- + Smart homes, cities, communities
- + Home and building automation
- + Nearly zero energy buildings
- + Information, security and privacy
- + Lighting systems and components

05. CIRCUITS, SENSORS AND ACTUATORS

- + Systems theory and modelling
- + Nonlinear circuits and systems
- + Solutions for EMI reduction and EMC
- + Signal processing and identification
- + Sensors and actuators
- + Smart circuits

06. MATERIALS FOR THE SUSTAINABLE TRANSITION

- + Materials for energy
- + Novel materials for energy harvesting
- + Nanotechnology for renewable energy
- + Applications of NEMS, MEMS for energy
- + Water Desalination

- + Grounding
- + Lightning protection systems
- + Hazard - Electric shock, arc flash, fire and explosion
- + Safety-oriented designs, work practices and procedures
- + Maintenance and operation practices
- + On line real time equipment diagnostic

11. MEASUREMENTS

- + Environmental and electrical measurements
- + Complex or smart measurement architectures
- + Advanced instrumentation and data acquisition systems
- + Signal and image processing
- + Data processing for AI applications
- + Data management

12. POLICY, EDUCATION AND STANDARDS

- + Policy
- + Energy regulation
- + Training and education
- + Standards

SUBMISSION PROCEDURE

Authors are invited to submit original papers in the areas aforementioned. Prospective authors should submit their Full Paper (4/6 pages, 2-column in IEEE format) by 1st of May to 31st of October 2023. The papers should clearly explain the originality and the relevance to the fields, and should be uploaded in electronic format to the website of the symposium. The guidelines to upload will appear on the website <https://www.eeeam.net/EEE-AM/> and <https://iee-eeeam.epu.edu.vn/index.html>.

All submitted abstracts will be evaluated by a peer review process. Authors whose papers are accepted for presentation will be requested to provide the final full paper by 31st of October 2023 combined with a registration for each submitted paper. For authors from industry typical paper length may be reduced to 3 pages. Poster sessions and special sessions will stimulate more in depth discussions on some specific and relevant topic

CALL FOR SPECIAL SESSIONS

Prospective organizers of special sessions should send their proposals via email to the Special Sessions Chairs, Gaetano Zizzo, at the addresses gaetano.zizzo@unipa.it. Special sessions are scheduled for one-quarter day (at most 5 speakers) / one-half day (at most 10 speakers) and are held during the Conference. All special session papers are peer reviewed through the same process as all the other submitted technical papers.

WORKING LANGUAGE

The working language of the conference is English, which will be used for all printed material, presentations, posters and discussions.

SYMPOSIUM VENUE

The Conference will be held at **National Convention Center**, 57 Pham Hung Road, Me Tri, Nam Tu Liem, Hanoi, VIETNAM.



CONTACTS

Details on the technical program of the Conference, as well as social events and hotel accommodation, available shortly on the conference website https://ieee_eeeam.epu.edu.vn/index.html or <https://www.eeeam.net/EEE-AM/>. For any query, please do not hesitate to contact the Organising Committee at the following email address: info@eeeic.net or qlkh@epu.edu.vn (for organizing questions) or sontt@epu.edu.vn (for papers and technical questions).



HONOR CHAIR

Prof. Huynh Thanh Dat

Minister of Ministry of Science and Technology (MOST)
113 Tran Duy Hung street, Cau Giay district, Ha Noi, Viet Nam

GENERAL CHAIRS

Prof. Tran Quoc Tuan

CEA Liten-INES (France National Institut for Solar Energy) & INSTN
50 av. du Lac Léman, 73375 Le Bourget-du-Lac, France

Prof. Sanseverino Eleonora Riva

University of Palermo,
61 Piazza Marina; 90133 – Palermo, Italy

Prof. Rodolfo Araneo

University of Rome Sapienza
St.Eudossiana18, 00184 Rome, Italy

Prof. Luigi Martirano

University of Rome Sapienza
St.Eudossiana18, 00184 Rome, Italy

TECHNICAL PROGRAM CHAIRS

Dr. Tran Thanh Son

Dean of Faculty of Electrical Engineering, (EPU)
235 Hoang Quoc Viet, Ha Noi, Vietnam

Assoc. Prof. Nguyen Hong Phuong

Eindhoven University of Technology
PO Box 513, 5600 MB Eindhoven, Netherlands

Assoc. Prof. Le Anh Tuan

Chalmers University of Technology
SE-412 96 Gothenburg, Sweden

LOCAL ORGANIZING COMMITTEE

Dr. NGUYEN LE CUONG

Vice rector of Electrical Engineering,
Electric Power University (EPU)
cuongnl@epu.edu.vn

Dr. TRAN THANH SON

Dean of Faculty of Electrical Engineering (EPU)
sontt@epu.edu.vn

Dr. DANG VIET HUNG

Deputy Dean of Faculty
of Electrical Engineering (EPU)
hungdv@epu.edu.vn

Dr. NGUYEN NGOC TRUNG

Head of Science Research and Int.
Cooperation Department (EPU)

Dr. NGUYEN DANG TOAN

Dean of Faculty
of Renewable Energy (EPU)

Dr. PHUNG THI XUAN BINH

Head of Science Research and International Cooperation Dept
(EPU)

Mr. DO HUU CHE

Head of Administration and Facilities Management Dept (EPU)

Ms. HOANG THI KIM OANH

Dean of Faculty
of Foreign Languages (EPU)

Dr. NGUYEN THI HONG KHANH

Director of the center of ICT, Electric Power University (EPU)

LOCAL CHAIRS

Assoc. Prof. Dinh Van Chau

Rector of Electric Power University (EPU)
235 Hoang Quoc Viet, Ha Noi, Vietnam

CONFERENCE TREASURER

Prof. Araneo Rodolfo

University of Rome "Sapienza"
St. Eudossiana 18, 00184 Rome, Italy

WEB AND PUBLICATIONS CHAIR

Prof. Leonowicz Zbigniew

Institute of Fundamentals of Electrical Engineering,
Wroclaw University of Technology Ul. Janiszewskiego 8,
50 - 377 Wroclaw, Poland

SPECIAL SESSIONS CHAIRS

Prof. Zizzo Gaetano

University of Palermo
Viale delle Scienze, Ed. 9 90128, Palermo, Italy

Assoc. Prof. TRAN VAN TOP

Electric and Electronic Engineering School, HUST

Assoc. Prof. DO HONG TUAN

Dean of Electronic, Electrical Engineering Department, VNU
HCM, Vietnam

*Chair IEEE Vietnam Session

Dr. PHAM NGUYEN LOAN

HUST (Secretary of IEEE Vietnam Session)

Assoc. Prof. NGUYEN HUY PHUONG

Deputy Director of Electric and Electronic Engineering School,
HUST

Dr. LAM DU SON

Former Deputy General Director of Electricity of Vietnam

Dr. NGUYEN TAI ANH

Deputy General Director of Electricity of Vietnam

Dr. VO QUANG LAM

Deputy General Director of Electricity of Vietnam

Dr. NGUYEN DUC CUONG

Board member, Electricity of Vietnam

Mr. NGUYEN TUAN TUNG

General Director of Vietnam National Power Transmission,
NPT-EVN, Vietnam

Dr. TRAN KY PHUC

General Director, Institute of Energy, Vietnam

Dr. LE CAO QUYEN

President of EVN-PECC4, Vietnam

Mr. NGUYEN TRONG NAM

Deputy General Director of EVN-PECC2, Vietnam

Mr. NGUYEN ANH DUNG

Deputy General Director of EVN-Hanoi, Vietnam



Mr. CHU VAN TUAN

Vice Director of Center of Employment and Start-up Supporting (EPU)

Dr. LE THI THOA

Technical team leader – GIZ Vietnam

Dr. NGUYEN PHU HUNG

Director of Science & Technology Department, Ministry MOST

Dr. NGUYEN TIEN TAI

Deputy Director of Science & Technology Department, Ministry (MOST)

Mr. TRAN TUE QUANG

Vice president of Electricity Regulatory Authority of Vietnam, Vietnam

Assoc. Prof. NGUYEN HOANG HAI

Vice President of Vietnam National University of Hanoi (VNU-HN)

Dr. TRAN NGUYET PHUONG

CEA-Leti, France

Dr. DANG BANG VIET

Deputy Director of Research and Sciences Department (EVN)

Dr. PHAM VIET THACH

Deputy Director of Strategy and Development Department (EVN)

Mrs NGO MY LINH

Expert of International Cooperation Department (EVN)

Mr NGO SON HAI

Deputy General Director of Vietnam Electricity (EVN)

Dr. LUAN QUOC HUNG

Deputy General Director, EVN-HCMC, Vietnam

Dr. PHAN NGOC TRUNG

Former Deputy General Director, Petrol of Vietnam (PVN)

Mrs LE THI LAM TRA

Deputy General Manager of Human Resources Division, PetroVietnam (PVN)

Assoc. Prof. DINH THI MAI THANH

Rector of University of Science and Technology of Hanoi (USTH)

Dr. NGUYEN QUANG VIET

Former Deputy Director of Research and Sciences Department (EVN)

Dr. NGO VIET HUNG

Vice PDG, Genco 2, Vietnam

Dr. LE VAN DAI

Industrial University, IU, Vietnam

LOCAL TECHNICAL COMMITTEE

Dr. Tran Thanh Son, Electric Power University, Vietnam

Dr. Nguyen Dang Toan, Electric Power University, Vietnam

Dr. Pham Manh Hai, Electric Power University, Vietnam

Dr. Dang Viet Hung, Electric Power University, Vietnam

Dr. Nguyen Ngoc Trung, Electric Power University, Vietnam

Dr. Nguyen Phuc Huy, Electric Power University, Vietnam

Dr. Vu Hoang Giang, Electric Power University, Vietnam

Dr. Vu Thi Thu Nga, Electric Power University, Vietnam

Dr. Tran Anh Tung, Electric Power University, Vietnam

Dr. Truong Nam Hung, Electric Power University, Vietnam

Dr. Le Thanh Toan, Electric Power University, Vietnam

Dr. Le Thuong Hien, Electric Power University, Vietnam

Dr. Nguyen To Tam, Electric Power University, Vietnam

Dr. Pham Duy Phong, Electric Power University, Vietnam

Assoc. Prof. Nguyen Huu Duc, Electric Power University, Vietnam

Assoc. Prof. Nguyen Ha Nam, Electric Power University, Vietnam

Dr. Nguyen Dat Minh, Electric Power University, Vietnam

Dr. Le Minh Tri, UGA, France

Dr. Pham Minh Cong, CEA-Liten France

Dr. Nguyen Van Hoa, EDF, France

Prof. Zizzo Gaetano, University of Palermo, Italy

Dr. Nguyen Tung Lam, Hawaii University, USA

Dr. Hoang Tran The, Auckland University, New Zealand

Dr. Tran Manh Hung, MOST, Vietnam

Assoc. Prof. Nguyen Xuan Tu, VNU-Hanoi, Vietnam

Prof. Huynh Quyen, HCMC University of Natural Resources and Environment, Vietnam

Dr. Vu Thang, Vinfast, Vietnam

Dr. Nguyen Xuan Truong, USTH, Vietnam

Dr. Nguyen Anh Tu, Sandia National Laboratories, USA

Dr. Nguyen Thi Ha, University of Connecticut, USA

Dr. Duong Quoc Bao, UGA, France

Assoc. Prof. Nguyen Huy Phuong, HUST, Vietnam

Assoc. Prof. Tran Prof. Van Top, HUST, Vietnam

Assoc. Prof. Nguyen Duc Huy, HUST, Vietnam

Dr. Nguyen Duc Tuyen, HUST, Vietnam

Dr. Le Thi Minh Chau, HUST, Vietnam

Prof. Tran Dinh Long, HUST, Vietnam

Prof. La Van Ut, HUST, Vietnam

Dr. Pham Nguyen Loan, HUST, (Secretary of IEEE Vietnam Session)

Prof. Nguyen Hong Anh, Qui Nhon University, Vietnam

Dr. Nguyen Nhat Tung, Thuy Loi University, Vietnam

Assoc. Prof. Nguyen Van Liem, VNU-HCM, Vietnam

Assoc. Prof. Hoang Trang, VNU-HCM, Vietnam

Assoc. Prof. Le Van Thang, VNU-HCM, Vietnam

Dr. Le Ky, VNU-HCM, Vietnam

Assoc. Prof. Vo Ngoc Dieu, VNU-HCM, Vietnam

Dr. Nguyen Nhat Nam, VNU HCM, Vietnam

Dr. Tran Hoang Linh, VNU HCM, Vietnam

Prof. Le Kim Hung, Danang University, Vietnam

Dr. Tran Tan Vinh, Danang University, Vietnam

Assoc. Prof. Dinh Thanh Viet, Danang University, Vietnam

Assoc. Prof. Nguyen Huu Hieu, Danang University, Vietnam

Dr. Trinh Trung Hieu, Danang University, Vietnam

Dr. Luu Ngoc An, Danang University, Vietnam

Dr. Tran Chi Thanh, Vinatom, Vietnam

Dr. Nguyen Thanh Liem, Yotek, Vietnam

Dr. Le Thanh Luong, Yotek, Vietnam

Dr. Nguyen Quang Ninh, VAST, Vietnam

Dr. Doan Van Binh, VAST, Vietnam

Dr. Labonne Antoine, UGA, France

INTERNATIONAL STEERING COMMITTEE

Prof. Tran Quoc Tuan, CEA-Liten & INSTN, France

Prof. Sanseverino Eleorora Riva, University of Palermo, Italy

Prof. Zizzo Gaetano, University of Palermo, Italy

Prof. Martirano Luigi, University of Rome "Sapienza", Italy

Prof. Araneo Rodolfo, University of Rome "Sapienza", Italy

Prof. Leonowicz Zbigniew, Wroclaw University of Technology, Poland

Assoc. Prof. Nguyen Hong Phuong, Eindhoven University of Technology, Netherlands

Prof. Baghzouz Yahia, University of Nevada, USA

Prof. Saifaoui Dennoun, University Hassan II, Morocco

Prof. Mohamed Elleuch, École Nationale d'Ingénieurs de Tunis, Tunisia

Prof. Mahseredjian Jean, École Polytechnique de Montréal, Canada

Dr. Belanger Jean, OPAL-RT, Canada

Dr. Strasser Thomas, Austrian Institute of Technology, Austria

Dr. Nguyen Dinh Hung, Nanyang Technological University, Singapore

Dr. Praing Chulasa, Electricity of Cambodia, Cambodia



Assoc. Prof. Le Anh Tuan, Chalmers University of Technology, Sweden
Dr. Nguyen Nguyet Phuong, CEA-Leti, France
Dr. Jouini Anis, CEA-Liten, France
Dr. Froidurot Benoit, CEA-Liten, France
Dr. Perraud Simon, CEA-Liten, France
Dr. Sirven Sanna, INSTN, France
Mr. Perrette Xavier, INSTN, France
Prof. Hadjsaid Nouredine, UGA, France, vice president of IEEE/PES
Prof. Caire Raphael, UGA, France
Prof. Bacha Seddik, UGA, France
Prof. Mohamed Benbouzid, Brest University, France
Assoc. Prof. Do Hong Tuan, VNU HCM, (IEEE Vietnam Session Chair)
Prof. Vale Zita, Polytechnic Institute of Porto, Portugal
Prof. Mircea Eremia, University "Politehnica" of Bucharest, Romania

Prof. Rahman Saifur, Virginia Tech Research Center, USA, IEEE President
Dr. Tran Chi Thanh, Vinatom, Vietnam
Prof. Zhaohao Ding, China
Prof. Zhang Zhen Yuan, China
Prof. Wei-Jen Lee, University of Texas at Arlington, USA
Prof. Dang Mau Chien, VNU HCM, Vietnam
Dr. Doan Duc Chanh Tin, VNU HCM, Vietnam
Dr. Magnus Andersson, IMCG International, Sweden
Dr. Olivier Deveaux, EDF R&D, France
Prof. Mario Paolone, IPFL, Switzerland
Prof. Monti Antonello, RWTH, Germany
Prof. Strunz Kai, TU Berlin, Germany
Prof. Goran Strbac, Imperial College London, UK
Dr. Albachrony Moch Arief, Nat Research and Innovation Agency, Indonesia
Prof. Mario Arturo Gonzalez Garcia, University Sans Louis Potosi, Mexico
Dr. Trung Tran, Eindhoven University of Technology, the Netherlands