

**AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY, PAIYANOOR, CHENNAI 603104**

**DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING**

## **REPORT ON**

# **INTERNATIONAL CONFERENCE ON SUSTAINABILITY MANAGEMENT OF ADVANCED RENEWABLE ENERGY TECHNOLOGIES - ICSMART 2019**

The department of Electrical and Electronics Engineering, Aarupadai Veedu Institute of Technology an ambit institution under Vinayaka Mission's Research Foundation, Paiyanoor, Chennai, organized a two day international conference on sustainability management of advanced renewable energy technologies, "ICSMART2019" on 11<sup>th</sup> and 12<sup>th</sup> April of 2019. The purpose of this conference was to provide a platform for the budding researchers, scientists, energy consultants and investors since the aim of the conference was to present important results to the international renewable energy community in form of research, development, applications, design and technology abreast of new developments and solutions to the current issues, such as greenhouse effect, energy storage, renewable energy materials, sustainable and green energy.

The inaugural event of the "ICSMART2019" was held on 11<sup>th</sup> April 2019, in the auditorium of Thiruvalluvar block. Dr. Wattanapong Rakwichian, Director, SG Tech School of Renewable Energy and Smart Grid Technology, Naresuan University, Phitsanulok, Thailand, was the chief Guest for the event. Dr. Sukruedee Sukchai, Advisor to the director SG Tech School of Renewable energy and smart grid technology, Naresuan University was the Guest of honour.

Before the inaugural event, the chief guest along with his team was garlanded and welcomed at the portico of AVIT, Thiruvalluvar Block by Dr. P. Shankar, Principal AVIT, Prof. P. Rajasekaran, Vice-Principal (Admin), Prof. L. Chitra, HOD-EEE and faculty members of EEE Department



**Chief guest Dr. Wattanapong Rakwichian and Dr. Sukruedee Sukchai welcomed by Principal, AVIT**

After a brief introduction overseas delegates and AVIT faculty in the board room of principal chamber, the guests were accompanied by the Provost (VMRF), Director (ETR), Principal (AVIT), Vice-principal, HOD-EEE to inaugurate the international conference in the auditorium.



The delegates were welcomed as per tradition and were given a rousing reception when they entered the auditorium and occupied the stage.



**Guests were welcomed by the reception committee at the entrance of auditorium**



The international conference “ICSMART 2019” was inaugurated with ‘Thamizh Thai Vazhthu’ and by lighting the traditional lamp by the chief guest Dr. Wattanapong Rakwichian and guest of honour Dr. Sukruedee Sukchai and other dignitaries of AVIT.



**Chief Guest and other dignitaries on the dias**



**Lighting of traditional lamp by the chief guest, in presence of Provost VMRF**

Prof. P. Rajasekaran, Vice-Principal, Admin, delivered the welcome address. He graciously welcomed the chief guest, guest of honour and the team from Thailand for accepting and honouring the request of AVIT to participate and grace the occasion. He also reminded the previous interactions he had with the faculty of Naresuan University, Thailand when he and his team visited for participate in academic events. Prof. Rajasekaran also welcomed the dignitaries of VMRF and AVIT on-stage and Off –stage, the participants from various technical institutions across India and abroad. He requested all of them to make the event successful.



**Prof. Rajasekaran, Delivering his Welcome address**

Prof. L. Chitra, HOD-EEE, gave a speech on the department of EEE at AVIT, its infrastructure, Faculty, Research facilities which were highlighted during her speech. She also highlighted the various activities that are currently undertaken by the department of EEE for the holistic development of the institution. She also spoke on the purpose of the conference 'ICSMART2019', which is primarily organized to be a golden opportunity for the young minds to showcase their analysis and also to present their research before experts. She welcomed all the dignitaries, participants, and those present at the inaugural event as HOD-EEE to extend their support for the successful conduct of the conference.



**Prof. L. Chitra, Addressing during the inaugural session**

The presidential address of the inaugural event of "ICSMART2019" was given by Dr. M. Ponnaivaikko, Provost, Vinayaka, Mission's Research Foundation. Provost greeted the dignitaries on-the stage and off-the stage and continued with the mission of VMRF, which is to

excel in disciplines of medical, engineering, dentistry, paramedical, basic sciences and management studies. He also showcased how the group has grown over the years to find itself among the reputed institutions in the country. He also stressed the need for such conferences which acts as an exchange of technical culture and expertise spread over various technical institutions. The lauded the efforts by the HOD, department of EEE and its faculty for the arrangements made.



**Dr. M. Ponnavaikko, Provost, VMRF addressing the gathering**

After the inaugural speech of Provost, VMRF, the Chief guest Dr. Wattanapong Rakwichian, Director, SG Tech School of Renewable Energy and Smart Grid Technology, Naresuan University, Phitsanulok, Thailand, the chief Guest for the event was honoured by the Provost, VMRF, Dr. M. Ponnavaikko and guest of honour, Dr. Sukruedee Sukchai by Director (ETR



**Dr. Wattanapong Rakwichian, honoured by Provost, and Dr. Sukruedee Sukchai by Director (ETR)**



Dr. P. Shankar, Principal, AVIT, welcomed Dr. Twap Suriwong of Naresuan University who was invited for a technical talk during conference session and also an international member of the conference chair was honoured during the inaugural event.





**Dr. P. Shankar honouring Dr. Twap Suriwong of Naresuan University**

A proceeding of the conference with ISBN no. titled: Proceedings of the international conference on sustainability management of advanced renewable energy technologies, was released during the inaugural event, by the chief guest and other dignitaries on the stage.



**Conference proceedings released by the chief guest**

Dr. Wattanapong Rakwichian, Director, SG Tech School of Renewable Energy and Smart Grid Technology, Naresuan University, Phitsanulok, Thailand, the chief Guest for the event delivered his address starting with the relations his institution with AVIT and VMRF. He mentioned that he was very happy to be here at AVIT as a chief guest and thanked the management and faculty for their arrangements. He also mentioned that he has more plans in pipeline for

collaborations between VMRF and Naresuan University as a part of MoU or otherwise. He said that conferences like “ICSMART 2019” will elucidate the wide spectrum of renewable energy issued through dignified environmentalists, distinguished professors, and scientist in conjunction with the research scholars, as an opportunity to showcase their skills and knowledge before the technical society. He added that conferences like this provide a forum for researchers around the world with the government regulators to discuss, exchange information, best practices on implementation of AMART renewable energy systems.



**Chief Guest Dr. Wattanapong Rakwichian, delivering his address**

The inaugural event was attended by dignitaries of Thailand, VMRF, heads of various institutions of VMRF, Professors and Heads of Various departments of AVIT, participants from various parts of the country.



**A part of the reputed audience during the inaugural session**

Dr. M . Venkateshkumar, Associate Professor, EEE and the convener of the “ICSMART 2019” presented his vote of thanks. He thanked Dr. Wattanapong Rakwichian, Director, SG Tech School of Renewable Energy and Smart Grid Technology, Naresuan University, Phitsanulok, Thailand, the chief Guest for the event. Dr. Sukruedee Sukchai, Advisor to the director, SG Tech School of Renewable energy and smart grid technology, Naresuan University, the Guest of honour, Dr. Twap Suriwong of Naresuan University, for coming all the way from Thailand for gracing the occasion. Dr. Venkateshkumar also thanked the dignitaries of VMRF and AVIT for gracing the occasion. Professors and Faculty of AVIT and the participants



**Dr. M. Venkateshkumar Delivering his vote of thanks during the Inaugural session**

Following the inaugural event, Dr. Twap Suriwong, Asst. Prof of Naresuan University, gave his invited talk. on the sustainable development in renewable energy in Thailand and the contributions of Naresuan University.



**Dr. Twap Suriwong, delivering his invited talk and Dr. Sukruedee Sukchai, delivering her address**





Dr. Sukruedee Sukchai, Advisor to the director SG Tech School of Renewable energy and smart grid technology, Naresuan University, the Guest of honour gave her address on the recent technology and its validation in the field of renewable energy systems.

### **BILATERAL DISCUSSION ON TECHNICAL COLLOBORATION**

During the post afternoon session on 11<sup>th</sup> April 2019, a high level meeting consisting of team from Naresuan University, Thailand and a team of AVIT and VMRF faculty headed by Provost Dr. M. Ponnaivaikko was held in the board room. During this meeting various aspects of possible technical collaborations in research and developments between Naresuan University and AVIT, VMRF was discussed. It was concluded to have frequent interactions between both technical institutions, including academic visits, interdisciplinary projects in the field of engineering and technology, medicine etc.



**Meeting of high level delegation of Naresuan University and VMRF to discuss mutual collaborations**

### **TECHNICAL SESSION**

A technical presentation session was conducted in the auditorium as post lunch session, where the authors of the best ten technical papers were called for presenting their work. This session was chaired by Dr. R. Seyezhai, professor, SSN College of Engineering. Dr. Seyezhai, started her session with her invited talk on the DC-DC converters used in the renewable energy system. she highlighted on various developments and the latest research in the converter design.

Among the ten best presentations, the presentation titled “Analytical Model to Predict the Effect of Dust on Performance of a Solar PV Panel” by Chintu Seth, Paresh Kale and Kaushal Kishor Singh of NIT, Rourkela, was adjudged as a contributing work by the conference chair.



**Dr. Seyezhai, Professor, SSNCE, sessions chair, delivering her session talk**

## CULTURAL EVENTS

In the evening, to entertain the conference participants, cultural programme was organized by the students of the department of EEE, Mechatronics and SAE in the auditorium as a pre dinner event. The cultural events included solo and group dancing, instrumental music, solo and group vocals etc.



**Students performing during cultural events organised**

**DAY 2 ( 12-04-2019)**

On 12<sup>th</sup> April 2019, the second day of “ ICSMART2019” witnessed the technical sessions and valedictory session of the conference. 31 papers were presented during the technical session organized under power system, power electronics and renewable energy titles.

Followed by the completion of technical sessions, during post noon, Valedictory session was conducted. Dr. C.L. kuppuswamy, Chief Engineer, Saipem India Ltd. was the chief guest.



**Dignitaries with the chief guest Dr. C.L. Kuppuswamy, sharing the dias, during valedictory function**  
Dr. G. Ezhilarasan, Professor, EEE, Welcomed the Chief guest and other dignitaries who have come to attend the valedictory event of “ICSMART2019”.



**Welcome address by Dr. G. Ezhilarasan and part of the audience and participants in auditorium**  
Dr. SAV Satya Murty, Director, Engineering and Technology Research, delivered his special address. He gave an insight of the current scenario in the country and globally with respect to





the renewable energy generation, he mentioned the current renewable generation and how quickly we achieved it. When talking about the conventional generation, he said there are three types of nuclear reactors classified on the fuel they use, and all the three types of reactors are functioning in IGCAR, Kalpakkam. He also insisted how the research and development has to take the technical society hence the country forward in coming years



**Dr. SAV Satya Murty, Director (ETR), delivering his special address**

Dr. C. L. Kuppuswamy, recalled his reminiscence with the electricity board where he was previously working as engineer. He pointed out how the quality of power supply has increased during the years and how the technology has helped to achieve it. He also mentioned how the grids are interconnected for power sharing such that surplus power at any part of the country can be transferred to the part where there is a need and this has made the country from power deficit to power surplus country. Dr. Kuppuswamy also insisted on more and more Research and development projects that has to be taken up by the younger generation for the sustainable growth.



**Dr. C. L. Kuppuswamy, Chief Engineer, Saipem, Delivering his address**



As the final part of the event, certificates were distributed to the participants of “ICSMART2019” by Dr, C. L. Kuppuswamy, Chief Engineer, Saipem Ltd.. Dr. K. boopathy, Professor, EEE delivered his vote of thanks. He thanked the Chief guest of the event and other dignitaries for gracing the occasion, he thanked all the heads of departments, professors, faculty and participants for making the event successful.



**Presentation of certificates by the Chief Guest and Dr.K. Boopathy delivering his vote of thanks**

The two day international conference on sustainability management of advanced renewable energy technologies “ICSMART 2019” ended with National Anthem.