

Report on
Energy Fest' 14
28th March, 2014

A Seminar on ‘Advanced Technologies and Innovations in Energy and Environment’– ENERGY FEST’14 was organized by the School of Energy, Environment and Natural Resources, Madurai Kamaraj University on 28th March, 2014.

Dr. Kalyani Mathivanan, Honorable Vice Chancellor, Madurai Kamaraj University inaugurated the conference. Prof. K. Muthuchelian, Former Vice Chancellor, Periyar University, Salem, Head and Chairperson, School of Energy Sciences, Madurai Kamaraj University delivered the Presidential Address.

Four special lectures were delivered by Dr. P. Venkatachalam, Professor and Head, department of Agricultural Engineering, Agricultural College and Research Institute, Dr. R. Balagurunathan, Professor and Head, Actinobacterial Research Laboratory, Department of Microbiology, Periyar University, Salem, Dr. N. Jeyakumaran, Associate professor, Department of Physics, V.H.N.S.N. College, Virudhunagar and Dr. P. Thangavel, Assistant Professor, Department of Environmental Science, Periyar University, Salem.

The conference included 83 students and staff from various colleges and institutions in Tamil Nadu. The conference included oral and poster presentations by students and research scholars.

Energy Fest 2014





Madurai Kamaraj University
(University with Potential for Excellence)



School of Energy, Environment and Natural Resources

ENERGY FEST '14

Seminar on

Advanced Technologies and Innovations in Energy and Environment

Souvenir

Organized by

School of Energy, Environment and Natural Resources

Madurai Kamaraj University

(University with Potential for Excellence)

Madurai - 625 021

Tamil Nadu, India

www.mkuniversity.org



ENERGY FEST '14

Seminar on

**Advanced Technologies and Innovations in Energy and Environment
March 28, 2014**

CONVENER & CO-ORDINATOR

Dr. K. Muthuchelian, Ph.D., D.Sc., FNABS., FZSI, FPBS, FIEF (Canada)

Former Vice-Chancellor, Periyar University,

Professor, Head & Chairperson, School of Energy, Environment & Natural Resources

Madurai Kamaraj University, Madurai – 625 021, Tamil Nadu, India

ORGANIZING COMMITTEE MEMBERS

Dr. S. Kannan, Associate Professor & Head, Department of Environmental Science

Dr. C. Gopinathan, Associate Professor & Head, Department of Solar Energy

Dr. C.M. Ramakritinan, Assistant Professor, Department of Marine and Coastal Studies

Dr. M. Anand, Assistant Professor, Department of Marine and Coastal studies

Dr. B. Vijay Bhaskar, Assistant Professor, Department of Bioenergy

Dr. S. Selvakumar, Assistant Professor, Dept. of Natural Resources & Waste Recycling

Earth Provides Enough To Satisfy Every Man's Need, But Not Every Man's Greed
 - Mahatma Gandhi

Organizing Committee

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M.A., Ph.D., D.Litt.
 Vice-Chancellor
 Madurai Kamaraj University

Patron

Dr. A. Muthumickam, *M.A., M.Ed., Ph.D.*
 Registrar (f/c), Madurai Kamaraj University

Convener & Co-ordinator

Dr. K. Muthuchelian,
Ph.D., D.Sc., FNAS, FZSI, FPBS, FIEP (Canada)
 (Former Vice-Chancellor, Periyar University)
 Professor, Head & Chairperson
 School of Energy, Environment & Natural Resources
 Madurai Kamaraj University

Organizing Committee Members

Dr. S. Kannan, *M.Sc., M. Ed., P.G.D.C.A., Ph.D.*
 Associate Professor & Head, Department of Environmental Science

Dr. C. Gopinathan, *M. Sc., Ph.D.*
 Associate Professor & Head, Department of Solar Energy

Dr. C.M. Ramakritinan, *M.Sc., Ph.D.*
 Assistant Professor, Department of Marine and Coastal Studies

Dr. M. Anand, *M.Sc., Ph.D.*
 Assistant Professor, Department of Marine and Coastal studies

Dr. B. Vijay Bhaskar, *M.Sc., Ph.D.*
 Assistant Professor, Department of Biobenergy

Dr. S. Selvakumar, *M.Sc., Ph.D.*
 Assistant Professor, Dept. of Natural Resources & Waste Recycling

&

All Research Scholars, M.Sc. and M.Phil. Students
 School of Energy, Environment and Natural Resources

Address for Communication

Dr. K. Muthuchelian
 Ph.D., D.Sc., FNAS, FZSI, FPBS, FIEP (Canada)
 Former Vice-Chancellor, Periyar University
 Professor, Head & Chairperson
 School of Energy, Environment and Natural Resources
 Madurai Kamaraj University, Madurai – 625 021, Tamil Nadu.
 Email: energymuseuminar2014@gmail.com

For Further Details Please Contact

Mr. S. Suresh, Research Scholar (Cell: 9965377514)
Ms. K. Roshini Begam, Research Scholar (Cell: 9790447883)
Ms. R. Indumathi, Research Scholar (Cell: 9578117501)



ENERGY FEST '14

Seminar on

Advanced Technologies and Innovations in Energy and Environment

School of Energy, Environment and Natural Resources
Madurai Kamaraj University
(University with Potential for Excellence)
 Madurai – 625 021, Tamil Nadu, India

March 28, 2014

REGISTRATION FORM

Name :
 Designation :
 Gender :
 University / Department :
 Address :
 Phone/Mobile :
 E.mail :
 Title of the paper :
 Oral/Poster :

Signature of the Applicant

Signature of the Head/Guide
 with seal

Place:
 Date:



ENERGY FEST '14

Seminar on

Advanced Technologies and Innovations in Energy and Environment

28th March, 2014



Organized by

School of Energy, Environment and Natural Resources
Madurai Kamaraj University
(University with Potential for Excellence)
 Madurai – 625 021
 Tamil Nadu, India
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Modern Technology Owes Ecology An Apology - Alan.M.Eddison

About the University

Madurai Kamaraj University (originally known as Madurai University) was established on 6th February 1966 at the heart of Madurai city. It was named after the historical city of Madurai, the ancient capital of the Pandyan rulers. Two years later, the foundation stone for a new campus was laid by Dr. Zakir Hussain, the then President of India on Madurai - Then road, 13 kilometers to the west of the city. Since then the campus has grown into a beautiful University township with an extensive area of about 750 acres, appropriately called in Tamil "Pakkalanagar". Moreover, in 1978, the name of the University was changed to Madurai Kamaraj University to honour the Sri Karma Veerar Kamarajar, one of the most illustrious sons of our country. The motto of the University is "To seek truth is knowledge" and this has been taken from Thirukkural. The University has 18 schools comprising 76 departments. The University has 109 affiliated colleges (9 autonomous) including other approved institutions and 7 evening colleges. The Directorate of Distance Education of the University has student strength of about 1.30 lakhs. There are centers which promote research potential of teachers. Extension activities are carried out through Department of Youth Welfare, NSS and Adult Education programmes. Madurai Kamaraj University got "University with Potential for Excellence" status from the University Grants Commission.

About the School

School of Energy, Environment and Natural Resources was started in 1981 with the financial support of UGC and Government of Tamil Nadu. This is an interdisciplinary school, which involves teaching, research and extension activities for the promotion of application oriented technologies related to Bio-Energy, Solar Energy, Energy Audit, Energy Management, Air Pollution Monitoring, Biodiversity, Marine Ecology, Biomass Production and Biomass Gasification. The school has four national centers of excellence such as Biomass Gasification Centre, Centre for Biodiversity and Forest Studies, Regional Solar Test Centre and Centre for Marine and Coastal Studies. The school offers P.G course in Environmental Sciences (M.Sc. & M.Phil.) and Sub Aqua Marine Ecology and Toxic Genomics (M.Sc.). The faculty members of the school have international research collaborations with many universities/institutes around the world. The school has produced more than 100 Ph.D. and also 170 M.Phil. students so far. Many research projects are under operation in this school with an aid of major funding agencies such as DST, DBT, UGC, MOES, MOEF and MMRE.

About the Seminar

The earth looks like a sparkling blue and white jewel laced with swirling veils of white-like a pearl in a thick sea of mystery. Today we observe hole spot in the protective ozone shields. Instead of sparkling blue and white jewel we see a dull dirty earth filled with dark swirling clouds of harmful gases. The mad rat race among nations over the globe for development, jeopardized the earth itself. This craze resulted into unlimited exploitation of every bit of natural resources. The splendid plentifulness of nature is a heritage that should be conserved for future generations. It is imperative that we carefully utilize our renewable resources of soil, water, plant and animal life to sustain our economic development. Over exploitation of these is reflected in the form of environmental degradation.

Abstract Submission

The abstract should be a maximum of 250 words with at least 4-5 key words in MS word format (Font: Times New Roman, Size: 12 points with 1.5 line spacing). Name of the presenting author must be in bold and underlined. The abstract should contain sufficient details of objectives, results and scope for discussion for the readers to understand the significance of the work. The abstract must be submitted on or before 22nd March, 2014 to the e-mail address: energymuseminar2014@gmail.com

Oral/Poster Presentation

The participants may present their paper in the form of oral or poster. The poster should encompass title of the paper, the author (s) name (s), affiliation (s), address (es) and e-mail address. The size of the poster should be with a dimension of 120 cm (height) x 90 cm (width). The content of the poster should be easily readable from a distance of 2-3 meters. Each oral presentation will be restricted to 10 minutes including discussion. Awards will be given to best oral and poster presentations.

Number of Participants

The total number of participants is restricted to 50 and preference will be given based on the first come first serve basis.

Venue

The venue of the seminar will be at the Seminar hall of the School of Energy, Environment and Natural Resource, Madurai Kamaraj University, Madurai-625 021, Tamil Nadu, India.

Registration Fee

The registration fee for Students/Research Scholars is Rs. 300/- and it may be paid in the form of spot registration at the seminar venue.

Dates to Remember

Last date for sending abstract: 22nd March 2014
Intimation of acceptance : 24th March 2014
Last date for registration : 26th March 2014

The depletion of these resources often tends to be irreversible and since bulk of our population depends on these natural resources to meet their basic needs, it has meant deterioration in their quality of life. It is commonly accepted that the standard of living increases with increasing energy consumption. It must be remembered that energy consumption cannot continue to grow exponentially forever. Any consideration of energy requirements and supply has to take into account for energy conservation. On the industrial front, emphasis must be placed on increased output with reduced energy consumption. Today there is widespread realization that there can be no ready-made solutions, that technology alone cannot solve problems that we have to use all our ingenuity to find solutions which combine the best of the old practices with the benefits that modern science and technology can offer. The notion of this seminar is to conserve the tonic of wildness and hence it will focus on various environmental issues to overcome the intoxicating vanity because the earth will not continue to offer its harvest, except with faithful stewardship.

Focused Areas

Renewable energy resources for sustainable future

- ★ Solar energy
- ★ Bioenergy
- ★ Wind energy
- ★ Hydro energy
- ★ Ocean & geothermal energy

Environmental pollution monitoring and control

- ★ Soil, air and water pollution and their control measures
- ★ Wastewater management and treatment
- ★ Pollution and health issues
- ★ Impact of industrialization on the environment
- ★ Greenhouse effect, global warming and climate change

Biodiversity resources, conservation and their management

- ★ Biodiversity – ethics, acts, policies and management
- ★ Biodiversity and its importance
- ★ Environmental problem and biodiversity
- ★ Conservation of biodiversity
- ★ Bioresource utilization

Marine environment

- ★ Marine microbiology
- ★ Fish biology
- ★ Marine toxicology
- ★ Ocean acidification
- ★ Coastal development and management

Nanotechnology

- ★ Nanomaterials for Energy and Environmental applications
- ★ Nanomaterials for drug delivery and cancer treatment
- ★ Carbon based nanomaterials and their applications
- ★ Environmental toxicity of nanomaterials
- ★ Characterization techniques for nanomaterials

Report of National Workshop on Ocean Acidification Research NWOAR 2015 held between 25.02.2015 and 27.02.2015

Department of Marine and Coastal Studies,
School of Energy, Environment and Natural Resources
Madurai Kamaraj University
Madurai 625021

The Department of Marine and Coastal Studies organized a three days national workshop on ocean acidification research from 25th to 27th February, 2015. This workshop is part of the research objective of the ongoing international (Indo-New Zealand) collaborative project “ Study on the impacts of climate change induced ocean acidification process on the physiology and calcifying rate of sea urchins between temperate (New Zealand) and tropical (India) species” sponsored by UGC, India. The aim of the workshop is to sensitize young researchers and scientist on the importance of ocean acidification research in India and to stress the need for ocean acidification research and to create awareness among the scientific community in order to save oceans.

Since all life forms in the earth is dependent on the ocean either directly or indirectly there arises a need to initiate a combined effort of all levels of government and policymakers to develop a network capable of meeting the challenges effected by ocean acidification to prevent further damage to this vast resource.

The workshop was conducted for three days, which included official presentations, plenary discussions and hands on training. Day one started with Invocation and inauguration which included welcome address by Dr. M. Anand, Organizing Secretary, NWOAR 2015 followed by the presidential address of Dr. Mrs. Kalyani Mathivanan Vice- Chancellor, Madurai Kamaraj University, Madurai, who also released “The Proceedings of the National Workshop on Ocean Acidification Research (NWOAR 2015)” after which Dr. K. Muthuchelian Former Vice-Chancellor, Periyar University delivered the inaugural address. The plenary sessions of the 1st day focused on the impacts of Ocean Acidification on Marine Chemistry and Marine Ecosystem

National Workshop on Ocean Acidification Research (NWOAR-2015) event photos



Organising Committee

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Madurai Kamaraj University

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Prof. and Chairperson, School of Energy, Environment
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Dr. C. M. Ramakritinan

Assistant Professor, Department of Marine & Coastal
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Dr. C. Gopinathan, Associate Professor, M. K. University

Dr. B. Vijay Bhaskar, Assistant Professor, M. K. University

Dr. S. Selvakumar, Assistant Professor, M. K. University

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Sundaranar University, Thirunelveli

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Periyar University, Selam

Dr. L. Kannan, Former Vice Chancellor
Thiruvalluvar University, Vellore

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Biology, Parangipettai

Dr. M. Krishnan, Professor and Head, Dept. of
Environment Biotechnology, Bharathidasan University, Trichy
Dr. S. Vincent, Professor, P.G & Research, Department
of Zoology and Dean of Science, Loyola College, Chennai

UGC - INZEC Project Funded
National Workshop on Ocean Acidification Research

NWOAR - 2015



REGISTRATION FORM

Name :

Designation :

Organization :

Address :

E-Mail :

Phone / Mobile :

Accommodation : Required / Not Required

Food Preference : Veg / Non Veg

Signature of the Candidate

Signature of the Guide/Head
of the Department

Place:

Date:
For Further Information Please Contact:

Dr. M. Anand

The Organising Secretary

National Workshop on Ocean Acidification Research (NWOAR)- 2015

Principal Investigator, UGC - India New Zealand Education Council

(INZEC) Research Project

Department of Marine & Coastal Studies

School of Energy, Environment and Natural Resources

Madurai Kamaraj University, Madurai- 625 021, Tamil Nadu

Mobile: +91 9444 120690 E-mail: nwoardmsraku@gmail.com

msaseen@mkuniversity.org

Mr. M. Maruthupandy

Research Scholar, Department of Marine and Coastal Studies

Mobile: 0-9944518445

UGC - INZEC Project Funded
National Workshop on Ocean Acidification Research

NWOAR - 2015

Control CO₂ Emission to Save Ocean



Date: 25 - 27 February, 2015

Venue: Department of Marine & Coastal Studies
School of Energy, Environment and Natural Resources
Madurai Kamaraj University, Madurai - 625 021

Madurai Kamaraj University, Marine Field Research Facility
Pudumadam - 623 021, Ramanathapuram District

Organised by



Department of Marine & Coastal Studies

Marine Field Research Facility

School of Energy, Environment and Natural Resources

Madurai Kamaraj University

(University with Potential for Excellence)

Pudumadam, Ramanathapuram District

Tamil Nadu, India

About the University

Madurai Kamaraj University, was named after the historical city of Madurai, the ancient capital of the Pandyan rulers and Kamaraj, one of the most illustrious sons of our country. The two components of the name may signify the pride in the hoary tradition of the Tamils and the present concern to live up to their ideals. The motto of the University is "To seek truth is knowledge" and this has been taken from Thirukkural. Madurai Kamaraj University, established in 1966, has 20 Schools comprising 77 Departments. The Directorate of Distance Education of the University has student strength of about 1.30 lakhs. The University has 99 affiliated Colleges (24 Autonomous) including other approved institutions and 4 evening colleges.

Genesis of the Department

Centre for Marine and Coastal Studies (CMCS) was instituted in 1998 for the establishment of a Marine Field Research facility at Pudhumadam, a coastal village in Ramanathapuram District. The Centre was upgraded to the Department of Marine and Coastal Studies from October 2009.

The department has a marine ecotoxicology laboratory facility constructed in an area of 3800 sq.ft (both Ground and First floors) with the financial support of MoES, New Delhi and our University and a separate facility for classrooms, laboratories, library, seminar hall, staff rooms and SCUBA lab in an area of 8,200 sq. ft.

The department has been recognized by its work and has been supported by international organizations such as IOC/UNESCO, UNDP, WHO, IFS, GCRMN and by national organizations such as the MoES (DOD), MoEF, ISRO, ICMR, CSIR, Planning Commission and the UGC.

The GEF/UNDP has also identified and included this Department as a member institution to carry out research activities in the Gulf of Mannar Marine Biosphere Reserve to protect and conserve the coral reefs.

The aim of the department is to develop Human Resource in the area of Marine and Coastal Research and Development for the benefit of coastal communities.

About the Venue

Madurai is the second largest city in Tamil Nadu located on the banks of River Vaigai. It is one of the oldest continuously inhabited cities in the world. Madurai is famous for its temples built by Pandyan and Madurai Nayak kings in the Dravidian style of architecture.

It is also one of India's most prominent Hindu pilgrimage centres and it is well connected by road, train and air. Madurai is also called as City of Junction (Koodal nagaram), City of Jasmine (Malligai maanagar), Temple city (Koil maanagar), City that never sleeps (Thoonga nagaram) and City of four junctions (Naamada: koodal).

Scope and Objectives of the Workshop

Ocean acidification has implications for many aspects of the Earth system (i.e., chemical, physical, biological, ecological and geological), and any successful research strategy that aims to develop the ability to predict the present and future responses of marine biota, ecosystem processes, and biogeochemistry requires a coordinated multidisciplinary approach. Critical research elements required for understanding the ocean acidification process involves regional and global networks of ocean observations and process studies, manipulative experiments involving a suite of marine organisms in laboratory studies, mesocosm and field experiments, and new modeling approaches. Ocean acidification is evident in this current era. It is not a regional issue but a global issue. Recently, in India the research on climate change and global warming has captured attention due to the melting of Himalayan glaciers. But research on ocean acidification has still not attained its importance. In response to the international scientific community's call for more coordinated research and action, the IAEA (International Atomic Energy Agency) has created the Ocean Acidification International Coordination Centre, which will be launched this summer. The Centre is based at the Environment Laboratories of the IAEA in Monaco, and is supported by several IAEA Member States. India having a long coastline and vast marine ecosystem like corals, diatoms, crustaceans, etc should also join the global ocean acidification research network. There is only limited empirical data available on ocean acidification research in India. The aim of the workshop is to sensitize young scientists and researchers to actively participate in the interdisciplinary ocean acidification research.

Participants

The participants would include stakeholders like Academicians, Scientists and Researchers. Only limited number of participants will be selected based on their career and research interest. The maximum number of participants will be twenty (20).

Invited Speakers

The invited speakers will be eminent Scientists, Academicians and Technocrats in the field of ocean acidification from the national institutes and Universities

Focal Areas

- * Marine chemistry and Ocean acidification
- * Impacts of Ocean acidification on Marine ecosystem
- * Ocean acidification research and Data analysis
- * Future research needs in ocean acidification

Registration

Participants are requested to send the registration form along with CV. The selected participants will be intimated where upon the participants are requested to make payments in the form of DD in favor of "Principal Investigator, INZEC Project", Madurai Kamaraj University, payable at Madurai

Registration Fees

Academicians / Scientists -Rs. 750/-
Research Scholars / Students -Rs. 300/-

The registration fees include workshop materials, working lunch and refreshments. Accommodation will be arranged for the participants on request through payment basis

Important Dates

Submission of Registration form : February 09, 2015
Acceptance Notification : February 11, 2015
Submission of Registration Fee : February 18, 2015

**REPORT OF THE INTERNATIONAL CONFERENCE ON OCEAN ACIDIFICATION
RESEARCH (ICOAR) DECEMBER 15 – 17, 2015**

Organising Secretary

Dr. M. Anand

Department of Marine and Coastal Studies

School of Energy, Environment and Natural Resources

Madurai Kamaraj University

(University with Potential for Excellence)

Madurai – 625 021

International Conference on Ocean Acidification Research – ICOAR 2015 organised by the Dept., of Marine and Coastal Studies, Marine Field Research Facility at Pudhumadam, Ramnad District, School of Energy, Environment and Natural Resources, Madurai Kamaraj University between 15th and 17th December 2015 is an outcome of the international collaborative project “Study on the impacts of climate change induced Ocean Acidification process on the physiology and calcifying rate of Sea Urchins between temperate (New Zealand) and tropical (India) species” sanctioned by India – New Zealand Education Council (INZEC)- UGC F. No. 101- 3/2014(IC) dated 25.06.2014.

The purpose of the workshop was to stress the need for ocean acidification research and to create awareness among the scientific community about the impact of ocean acidification and marine ecosystem. The recommendations stressed the importance of immediate actions needed in the near future to develop collaborative and intensive approaches to prevent further acidification of oceans and save the vast and complex marine biodiversity.

The workshop was conducted for three days which included invited lectures from Resource Persons, posters and research paper presentation by participants and field visit to Kurusadai Island. Day one started with Invocation and a grand inauguration at Daiwik Hotel, Rameswaram on 15.12.2015. Dr. M. Anand, the Assistant Professor and Organising Secretary of the conference welcomed the delegates and participants. The former Vice Chancellor of Periyar University, Salem and Head and the Chairperson of the School of Energy, Environment and Natural Resources, Prof. Dr. K. Muthuchelian, in his presidential address pointed out the vulnerability of ever increasing usage of fossil fuels and its negative consequences of increased liberation of greenhouse gases, particularly CO₂ as a predominant culprit gas to a alarming level of nearing 400 ppm in the atmosphere at present. Prof. A.K. Kumaraguru, who is the former Vice Chancellor of Manonmanium Sundaranar University, Tirunelveli in his inaugural address explained in detail about the sources of ocean acidification with statistical data for increasing CO₂ levels in the atmosphere and its impact on marine ecosystem across the globe. Dr. Mary A. Swell, Associate Professor, University of Auckland, New Zealand and the Collaborator of the Indo – New Zealand Education Council (INZEC) sponsored research program on Ocean Acidification Research, in her keynote address elaborately narrated the methodologies to study the ocean acidification in marine waters in practice at New Zealand. She has made lucid presentation about the process and impacts of ocean acidification between tropical and temperate environments.

15 Oral presentations and 14 poster presentations were the conference proceedings, followed by 8 lead lectures by invited guests and a field visit to nearby Kurusadai Island.

Photographs of the event



Inauguration



Lead Lecture I: Dr. Mary A Sewell, Associate Professor, School of Biological Sciences, The University of Auckland, New Zealand

Visit to Kurusadai Island



Valedictory Function





International Conference on Ocean Acidification Research (ICOAR - 2015)



15th - 17th December, 2015

Organised by

Department of Marine and Coastal Studies
School of Energy, Environment and Natural Resources
Madurai Kamaraj University
(University with Potential for Excellence)
Pudumadam, Ramanathapuram District
Tamil Nadu, India

Scope and Objectives of the Conference

Ocean acidification has held its implications in many aspects of Earth system (chemical, physical, biological, ecological and geological) and any successful research strategy that aims to predict the present and future responses of marine biota, ecosystem processes, and biogeochemistry requires a coordinated multidisciplinary research approach. Critical research elements required for understanding the ocean acidification process involves regional and global networks of ocean observations, process studies and manipulative experiments, involving a suite of marine organisms in laboratory studies, mesocosm, field experiments and new modeling approaches. Ocean acidification is obviously evident in the present era and moreover it is recognised as a global issue. Recently, in India, the research on climate change and global warming has captured immense attention due to the melting of Himalayan glaciers. But, research on ocean acidification is still in its infancy. India has a long coastline and vast marine ecosystem like corals, sea grasses, seaweeds and mangroves. There is only limited empirical data available on ocean acidification research in India. Therefore, this conference is aimed to sensitize young scientists and researchers to actively participate in the interdisciplinary research on ocean acidification.

Conference Themes

- Climate change
- Ocean chemistry
- Impacts on marine ecosystem
- Biofouling
- Social issues
- Emerging challenges and future prospects

Participants

The participants would include stakeholders like Academicians, Scientists and Researchers.

Invited Speakers

The invited speakers will be eminent Scientists, Academicians and Technocrats working in the field of ocean acidification from International and National Institutes and Universities.

Call for Abstracts

Papers on any of the above mentioned themes and related topics are invited from experts, faculty members, scientists and research scholars. Those interested are requested to submit abstract (not exceeding 500 words on A4 size paper with 12 font size in Times New Roman) and send the same to the conference Organising Secretary as soft copy on or before 31st August 2015. The soft copy of abstract should be mailed to icoar2015@gmail.com.

Registration Fees

Scientists and Academicians	: ₹ 4000.00	US \$ 250
Research Scholars / Students	: ₹ 2000.00	US \$ 100
Accompanying Person	: ₹ 2500.00	US \$ 100

The delegate fee includes conference proceedings, registration kit and working lunch. Delegate fee can be sent by demand draft drawn in favour of **Organising Secretary, ICOAR 2015, Madurai Kamaraj University, payable at Madurai** and send the same to **Dr. M. Anand, Organising Secretary, ICOAR - 2015, Department of Marine and Coastal Studies, Madurai Kamaraj University, Madurai – 625 021, Tamil Nadu, India.** Registration fee once paid will not be refunded.

Important Dates

Abstract submission deadline	: 31 st August 2015
Notification of acceptance	: 15 th September 2015
Submission of Registration Fee	: 31 st September 2015

Conference Venue

Marine Field Research Facility, Department of Marine and Coastal Studies, Madurai Kamaraj University, Pudumadam - 623 524, Ramanathapuram District, Tamil Nadu, India.

Accommodation

Accommodation will be arranged on request for all registered participants in nearby hotels at Ramnathapuram District. The accommodation expenses have to be borne by the participants. Delegates interested in booking the accommodation may send their request along with an advance payment of 3000/- per person in favour of **Organising Secretary, ICOAR - 2015**. This is to ensure and confirm the accommodation.

Organising Committee

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Convener Committee Members

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Patron

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Registrar, Madurai Kamaraj University

Chairman

Prof. Dr. K. Muthuchelian

Former Vice-Chancellor, Periyar University, Salem

Head and Chairperson, School of Energy, Environment and Natural Resources, Madurai Kamaraj University

Organising Secretary

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Assistant Professor, Department of Marine and Coastal Studies, School of Energy, Environment and Natural Resources, MKU

Executive Member

Dr. C. M. Ramakritinan

Assistant Professor, Department of Marine and Coastal Studies, School of Energy, Environment and Natural Resources, MKU

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For Further Details Contact: Dr. M. Anand, Organising Secretary, ICOAR-2015, Assistant Professor, Department of Marine and Coastal Studies, School of Energy, Environment and Natural Resources, Madurai Kamaraj University, Madurai. Mobile: +91 9444120690, Email: anandm21@yahoo.com, icoar2015@gmail.com

Report on
One Day Workshop and Awareness Program on Solar Rooftop Segments
30th May, 2016

A One Day Workshop and Awareness Program on Solar Rooftop Segments was organized by the Department of Solar Energy, School of Energy, Environment and Natural Resources, Madurai Kamaraj University on 30th May, 2016. The area of focus of the workshop was on the recent trends and innovations in Solar Photovoltaic Technology.

Dr. C. Gopinathan, Professor and Head, Department of Solar Energy, School of Energy, Environment and Natural Resources, Madurai Kamaraj University welcomed the gathering and Prof. K. Muthuchelian, Chairperson, School of Energy, Environment and Natural Resources, Madurai Kamaraj University delivered the inaugural address.

Special lectures and demonstration on intelligent hardware system for solar rooftop power plants were delivered by the team members of iPLON India Private Limited, Chennai.

33 participants from various solar companies including students and staff of School of Energy, Environment and Natural Resources made the workshop a grand success. The recent developments and best practices in the solar rooftop segments were discussed.


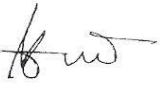
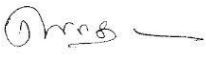






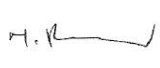


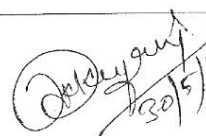
LIST OF PARTICIPANTS

DEPARTMENT OF SOLAR ENERGY
School of Energy Sciences
Madurai Kamaraj University

One Day Workshop and Awareness Programme on
Solar Rooftop Segments
30th May 2016






List of Participants

Sl. No.	Name and Address	Designation	Signature
1.	M. Ramachandran (TI) mgan Power Sys Co Ltd. 63, Thimudhura mchthol, Nehru Nagar Madurai. 625016	GM & manager	
2.	A. Subramaniam ARTHANA GREEN ENERGY MADURAI- 01. 9566900517.	Proprietor	
3.	P. THANCIARAS. Sharan Solar Solutions Madurai	CEO	
4.	N. KARTHIKA B. ABIRAMI J. JASLINE. R. MAHABOORIZWANA	FATIMA COLLEGE	B. Akhila N. Karthika J. Jasline R. Mahaboob Riyaz
5.	A. THEERTHAKAR ATRSOLAR BAGALAMURAI ATRSOLAR.	MD	
6.	V. SIVAKAMI Dept. of Environ. Studies MKU	Research Scholar	V. Sivakami
7.	A. Deepa Dept. of solar energy M.KU	Research scholar	A. Deepa

Sl. No.	Name and Address	Designation	Signature
8.	Dr. S. Saravanan SERB-Young Scientist Alagappa University Karakudi-4	SERB-Young Scientist	
9.	E. Manimohan Research Scholar MKU	Ph.D Research Scholar	
10.	B. Jeyanagesan S.R.G. Solan. Madurai.		
11.	M. RAJESH Kannan DST-JRF Madurai Kamaraj University	Ph.D Research Scholar	
12.	R. DEEPA Ph.D Scholar SEEN, MKU	Ph.D Research Scholar	
13.	R. MAHESH UGC-PDF CBFS-SEEN-MKU	PDF	
14.	Dr. R. Karthikeyani UGC-PDFWM CBFS-SEEN, MKU	PDFWM	 30/5/16.

Sl. No.	Name and Address	Designation	Signature
15.	Agriam Power SOLUTION 3A. Southvelli Stg Madurai - 1 S. SULTAN A-AUDDEN	MD	S.S. Aun
16.	V. Dharmalakshmi Madurai Kamaraj University	Ph.D	V. Dharmalakshmi
17.	CHERLY ANTO FREZINA	M. PHIL	Cherly
18.	N. Muthusakthi Sundar	M.Sc	N. Muth.
19.	M. Rajeswari	Research Assistant RTc (Super Thermal) M.K.V.	M. Loh
20.	K. Manikya	Ph.D	K.M.
21.	R. Rajin Gandhi	Scholar	R. Rajin Gandhi

Sl. No.	Name and Address	Designation	Signature
22.	P. Meenakshi sundari M.Phil MKU university	M.Phil Student	P. Meenakshi Sundari
23. ✓	Nizzy. A.M Ph.D MKU	Research scholar	Nizzy A.M
24.	Gowthami Balasubramanian M.Phil MKU	M.Phil student	Gowthami
25.	T. MUNEESWARAN. Ph.D., MKU.	Ph.D.	T. Muneeswaran
26.	Gunavel. R 22-B, CMR Road, Madurai	Manager, Partner, Smart Watt energy solutions	Gunavel R
27.	S. SARAVANAN 'Thattam' Madurai - 18.	Entrepreneur	S. Saravanan
28. ✓	Tomyson Daniel Regional Solar Energy Testing Centre, MKU	Scientist/ Research Associate	Tomyson Daniel

Sl. No.	Name and Address	Designation	Signature
29.	P-PANDI Research scholar Dept. of solar Energy	Research scholar	
30.	D. NITHYAA SREE Research scholar Dept. of solar Energy	Research scholar	
31.	S. Vijayaram Research scholar Dept. of Environment & Studies SEEN, MKU	Research scholar	
32.	Dr. S. KANNAN Director UGC Acad HRDC M.K. University		
33.	P. Baccidalekmi	Research scholar	
34.			
35.			

Report on
“National Level Short-Term Hands on Training in “Recent Advances in Marine Ecotoxicological Testing”, RAMETOX 2015
5-9th January, 2017

The National level short-term hands on training in Recent Advances in Marine Ecotoxicological testing–RAMETOX2015 was organized by the Department of Marine and Coastal Studies, School of Energy, Environment and Natural Resources, Madurai Kamaraj University at Pudumadam on 5th January 2017. Dr.C.M.Ramakritinan, the Organizing Secretary welcomed the gathering. Dr.S. Kannan, the Director, UGC-Human Resource Development Centre, Madurai Kamaraj University, Madurai has been inaugurated the function. He emphasized the importance of the centre and its role in safe guarding the coral reefs in the Gulf of Mannar region.

Prof. Dr.M.P. Balasubramanian, Former Professor, Department of Pharmacology and Environmental Toxicology, University of Madras delivered the Keynote address and elaborated the impacts of toxicants in fertility.

Dr.A. Balasubramani, Assistant Professor of Zoology, Directorate of Distance Education, Madurai Kamaraj University, Madurai, in his felicitation address stressed the need of keeping the marine ecosystem, safe and sustainable use of its resources.

Dr.M. Anand, Assistant Professor, Department of Marine and Coastal Studies, School of Energy, Environment and Natural Resources, Madurai Kamaraj University proposed vote of thanks. The function was attended by the participants, resource persons and general public of Pudumadam village.

The National level short-term hands on training in Recent Advances in Marine Ecotoxicological testing–RAMETOX2015 was conducted by the Department of Marine and Coastal Studies, School of Energy, Environment and Natural Resources, Madurai Kamaraj University at Pudumadam from 5th to 9th January 2017. The valedictory function was held at Pudumadam on 9th January 2017. Dr.M.Anand, Assistant Professor, Department of Marine and Coastal Studies welcomed the gathering.

Dr.D. Mohan, Scientist ‘F’, Integrated Coastal and Marine Area Management (ICMAM), Ministry of Earth Sciences (MoES), Chennai in his special address outlined the significance of seawater quality criteria for coastal uses and marine outfalls for metals and pesticides through standard toxicity testing methods to amend the existing Gazette Notification under the Environment Protection Act of 1986. He has also narrated his experiences on the implementation of the project entitled ‘Marine Ecotoxicology for Specific Habitats like Ennore Creek, Chennai and the Coral Reef Ecosystem of Gulf of Mannar.

Mr.M.S. Dharwaes, President, Pudumadam Panchayat in his felicitation address emphasized the importance of marine resources.

Dr.A. Balasubramani, Assistant Professor of Zoology, Directorate of Distance Education, Madurai Kamaraj University, Madurai, in his felicitation address outlined the importance of the technical sessions of the programme and stressed on various methods of

marine ecotoxicological testing and the need for protection of marine environment.

Dr.C.M. Ramakritinan, the Organizing Secretary, RAMETOX15 programme, Department of Marine and Coastal Studies, School of Energy, Environment and Natural Resources, Madurai Kamaraj University proposed vote of thanks.

The function was attended by the participants and general public of Pudumadam village.



List of Participants

S. No	Name	Address	Phone	Email id
1	Ms.D. Suganya	Research Scholar, Department of Biology Gandhigram Rural Institute, Gandhigram, Dindigul – 641 302	08344437218	dsuganyabio@gmail.com
2	Mrs.S. Asmathu Fathima	Asst. Prof, Dept of Botany, Dr. Zakir Husain College Ilayankudi.	09488005989	asmathubot@gmail.com
3	Mr.Maharajan. K	JRF, DRDO- BU CLS, Dept of Zoology Bharathiar University	09626020252	maharajan404@gmail.com

		Coimbatore – 641046		
4	Mrs. Vidya Monoi	104, Dwarkanagri Plot 126/3, Sect. 13, Chikhali Pradhikaran, Pune - 411019	09764524038	vidyamonoi@gmail.com
5	Ms. K.H. Mariyam	Research Scholar, Dept. of Zoology University of Calicut Malappuram, Kerala	09495374353	mariyamkallipparambil@gmail.com
6	Ms. K.P. Greeshma	Research Scholar, Dept. of Zoology University of Calicut Malappuram, Kerala	09744936962	Greeshmakp57@gmail.com
7	Dr.P. Jayanthi	Assistant Professor, Department of Environmental Science, Periyar University, Salem	09791010843	jayanthievs@gmail.com
8	Mr. A.Subburaj	Ph.D., Scholar, Department of Fisheries Biology and Resource Management, Fisheries College & Research Institute, Thoothukudi-628 008	09488820382	arunmari.raj3@gmail.com
9	Mrs. N. Muthurakku @ Sudha	M Phil Student, Department of Marine and Coastal Studies, Madurai Kamaraj University, Pudumadam	09715762780	crazysudha247@gmail.com
10	Mrs. M. Dhivya Bharathi	M.Sc., Student, Dept. of Biochemistry, Government Arts College, Paramakudi	08220390221	bharathidhivya01@gmail.com

Report on
Energy Fest' 17
28th March, 2017

A Seminar on 'Advanced Technologies and Innovations in Energy and Environment'– ENERGY FEST'17 was organized by the School of Energy, Environment and Natural Resources, Madurai Kamaraj University on 28th March, 2017.

Dr. Rajendran, Professor delivered a talk on Ocean Thermal Energy Conversion Technology. Dr. R. V. Krishnakumar, Associate Professor, Department of Physics, Thiagarajar College, Madurai delivered the C.E. Sooriamoorthi Endowment Manivizha Lecture. Dr. Ramanibai, Professor, Department of Zoology, University of Madras delivered the keynote address in the valedictory function.

73 students from various colleges and institutions in Tamil Nadu participated in the Seminar. The conference included oral and poster presentations by students and research scholars from various disciplines.



Earth Provides Enough To Satisfy Every Man's Need, But Not Every Man's Greed
- Mahatma Gandhi

Organizing Committee

Chief Patron

Prof. Dr. G. Arumugam,
M.Sc. (AS), M.B.A., Ph.D. (Paris)

Registrar (i/c), Madurai Kamaraj University

Patron

Prof. Dr. K. Muthuchelian,

Ph.D., D.Sc., FNABS., FZSI, FPBS, FIEF (Canada)

Controller of Examinations (i/c), Madurai
Kamaraj University

Convener & Co-ordinator

Prof. Dr. K. Muthuchelian,

Ph.D., D.Sc., FNABS., FZSI, FPBS, FIEF (Canada)

(Former Vice-Chancellor, Periyar University)
Professor, Head & Chairperson
School of Energy, Environment & Natural Resources
Madurai Kamaraj University

Organizing Committee Members

Dr. S. Kannan, M.Sc., M.Ed., P.G.D.C.A., Ph.D.

Associate Professor, Department of Environmental Science

Dr. C. Gopinathan, M.Sc., Ph.D.

Associate Professor & Head, Department of Solar Energy

Dr. C.M. Ramakritinan, M.Sc., Ph.D.

Assistant Professor, Department of Marine and Coastal Studies

Dr. M. Anand, M.Sc., Ph.D.

Assistant Professor, Department of Marine and Coastal studies

Dr. B. Vijay Bhaskar, M.Sc., Ph.D.

Assistant Professor, Department of Bioenergy

Dr. S. Selvakumar, M.Sc., Ph.D.

Assistant Professor, Dept. of Natural Resources & Waste Recycling

&

All Research Scholars, M.Sc. and M.Phil. Students
School of Energy, Environment and Natural Resources

Address for Communication

Prof. Dr. K. Muthuchelian

Ph.D., D.Sc., FNABS., FZSI, FPBS, FIEF (Canada)

Former Vice-Chancellor, Periyar University

Professor, Head & Chairperson

School of Energy, Environment and Natural Resources

Madurai Kamaraj University, Madurai – 625 021, Tamil Nadu.

Email: energyfest2017@gmail.com

For Further Details Please Contact

Dr. R. Mahesh, Post Doctoral Fellow (Cell: 9976106111)

Dr. R. Karthikeyani, Post Doctoral Fellow (Cell: 7708008545)



ENERGY FEST '17

Seminar on

**Advanced Technologies and Innovations in
Energy and Environment**

School of Energy, Environment and Natural Resources
Madurai Kamaraj University
(University with Potential for Excellence)
Madurai – 625 021, Tamil Nadu, India

March 28, 2017

REGISTRATION FORM

Name :

Designation :

Gender :

University /
Department :

Address :

Phone/Mobile :

E.mail :

Title of the paper :

Oral/Poster :

Signature of the Applicant

Signature of the Head/Guide
with seal

Place:

Date:



ENERGY FEST '17

Seminar on

**Advanced Technologies and
Innovations in Energy and Environment**

28th March, 2017



Organized by

School of Energy, Environment and Natural Resources
Madurai Kamaraj University
(University with Potential for Excellence)
Madurai – 625 021
Tamil Nadu, India
www.mkuniversity.org



Modern Technology Owes Ecology An Apology - Alan.M.Eddison

About the University

Madurai Kamaraj University (originally known as Madurai University) was established on 6th February 1966 at the heart of Madurai city. It was named after the historical city of Madurai, the ancient capital of the Pandyan rulers. Two years later, the foundation stone for a new campus was laid by Dr. Zakir Hussain, the then President of India on Madurai - Theni road, 13 kilometers to the west of the city. Since then the campus has grown into a beautiful University township with an extensive area of about 750 acres, appropriately called in Tamil "Palkalainagar". Moreover, in 1978, the name of the University was changed to Madurai Kamaraj University to honour the Shri Karma Veerar Kamarajar, one of the most illustrious sons of our country. The motto of the University is "To seek truth is knowledge" and this has been taken from Thirukkural. The University has 20 Schools comprising 77 renowned Departments. The University has 24 autonomous colleges, 14 aided colleges, 33 self financing colleges, 18 approved institutions, 4 evening colleges and 6 constituent colleges. Madurai Kamaraj University got "University with Potential for Excellence" status from the University Grants Commission.

About the School

School of Energy, Environment and Natural Resources was started in 1981 with the financial support of UGC and Government of Tamil Nadu. This is an interdisciplinary school, which involves teaching, research and extension activities for the promotion of application oriented technologies related to Bio-Energy, Solar Energy, Energy Audit, Energy Management, Air Pollution Monitoring, Biodiversity, Marine Ecology, Biomass Production and Biomass Gasification. The school has four national centers of excellence such as Biomass Gasification Centre, Centre for Biodiversity and Forest Studies, Regional Solar Test Centre and Centre for Marine and Coastal Studies. The school offers P.G course in Environmental Sciences (M.Sc. & M.Phil.) and Sub Aqua Marine Ecology and Toxic Genomics (M.Sc.). The faculty members of the school have international research collaborations with many universities/ institutes around the world. The school has produced more than 130 Ph.D. and also 180 M.Phil. students so far. Many research projects are under operation in this school with an aid of major funding agencies such as DST, DBT, UGC, MOES, MOEF and MNRE.

About the Seminar

The earth looks like a sparkling blue and white jewel laced with swirling veils of white- like a pearl in a thick sea of mystery. Today we observe hole spot in the protective ozone shields. Instead of sparkling blue and white jewel we see a dull dirty earth filled with dark swirling clouds of harmful gases. The mad rat race among nations over the globe for development, jeopardized the earth itself. This craze resulted into unlimited exploitation of every bit of natural resources. The splendid plentifulness of nature is a heritage that should be conserved for future generations. It is imperative that we carefully utilize our renewable resources of soil, water, plant and animal life to sustain our economic development. Over exploitation of these is reflected in the form of environmental degradation.

The depletion of these resources often tends to be irreversible and since bulk of our population depends on these natural resources to meet their basic needs, it has meant deterioration in their quality of life. It is commonly accepted that the standard of living increases with increasing energy consumption. It must be remembered that energy consumption cannot continue to grow exponentially forever. Any consideration of energy requirements and supply has to take into account for energy conservation. On the industrial front, emphasis must be placed on increased output with reduced energy consumption. Today there is widespread realization that there can be no readymade solutions, that technology alone cannot solve problems, that we have to use all our ingenuity to find solutions which combine the best of the old practices with the benefits that modern science and technology can offer. The notion of this seminar is to conserve the tonic of wildness and hence it will focus on various environmental issues to overcome the intoxicating vanity because the earth will not continue to offer its harvest, except with faithful stewardship.

Focused Areas

Renewable energy resources for sustainable future

- Solar energy
- Bioenergy
- Wind energy
- Hydro energy
- Ocean & geothermal energy

Environmental pollution monitoring and control

- Soil, air and water pollution and their control measures
- Wastewater management and treatment
- Pollution and health issues
- Impact of industrialization on the environment
- Greenhouse effect, global warming and climate change

Biodiversity resources, conservation and their management

- Biodiversity – ethics, acts, policies and management
- Biodiversity and its importance
- Environmental problem and biodiversity
- Conservation of biodiversity
- Bioresource utilization

Marine environment

- Marine microbiology
- Marine toxicology
- Fish biology
- Ocean acidification
- Coastal development and management

Nanotechnology

- Nanomaterials for Energy and Environmental applications
- Nanomaterials for drug delivery and cancer treatment
- Carbon based nanomaterials and their applications
- Environmental toxicity of nanomaterials
- Characterization techniques for nanomaterials

Abstract Submission

The abstract should be a maximum of 250 words with at least 4-5 key words in MS word format (Font: Times New Roman, Size: 12 points with 1.5 line spacing). Name of the presenting author must be in bold and underlined. The abstract should contain sufficient details of objectives, results and scope for discussion for the readers to understand the significance of the work. The abstract must be submitted on or before 22nd March, 2014 to the e-mail address: energyfest2017@gmail.com

Oral/Poster Presentation

The participants may present their paper in the form of oral or poster. The poster should encompass title of the paper, the author (s) name (s), affiliation (s), address (es) and e-mail address. The size of the poster should be with a dimension of 120 cm (height) x 90 cm (width). The content of the poster should be easily readable from a distance of 2–3 meters. Each oral presentation will be restricted to 10 minutes including discussion. Awards will be given to best oral and poster presentations.

Number of Participants

The total number of participants is restricted to 50 and preference will be given based on the first come first serve basis.

Venue

The venue of the seminar will be at the Seminar hall of the School of Energy, Environment and Natural Resource, Madurai Kamaraj University, Madurai – 625 021, Tamil Nadu, India.

Registration Fee

The registration fee for Students/Research Scholars is Rs. 300/- and it may be paid in the form of spot registration at the seminar venue.

Dates to Remember

Last date for sending abstract: 22nd March 2017

Intimation of acceptance : 24th March 2017

Last date for registration : 26th March 2017

Report on
One Day Seminar Cum awareness on SCUBA Diving
14th September 2017

The Department of Marine and Coastal Studies, School of Energy, Environment and Natural Resources, Madurai Kamaraj University, Pudumadam has organised one day seminar cum Awareness programme on “SCUBA diving” on 14th September 2017. Dr.C.M.Ramakritinan, Head, Department of Marine and coastal Studies welcomed the gathering.

Prof. Dr. P.P.Chellathurai, Vice Chancellor, Madurai Kamaraj University presided over and inaugurated the function. In his presidential address, he has stressed the significance of developing the attitude to innovate new ideas and exploring the possibilities of mind power. The marine resources may be protected and studied by undergoing training on SCUBA diving for underwater exploration, on venturing various fields of the marine and coastal studies. The Vice Chancellor along with the members of the university and other external experts planted saplings in the Department of Marine and Coastal Studies campus at Pudumadam.

Prof. Dr. K.Muthuchelian, Chairperson, School of Energy Science, Madurai Kamaraj University, delivered keynote address on the history, recent development and benefits and opportunities of undergoing the training on SCUBA diving. Dr.S.Chandrasekar in his felicitation address noted the death of trained SCUBA technicians during Tsunami disaster in 2004 have made the scientific agencies to go for training of SCUBA diving at a large scale. Dr. D.Ganesh in his felicitation address wished the participants to make use of the training to the fullest mode availing the enormous opportunities.

Mr. Dharwesh, President, Pudumadam Village Panchayat also felicitated the Training participants. Dr. M. Anand, proposed vote of thanks. Drs. Dharani, Jeyabaskaran, Rajkumar, Marimuthu delivered technical lectures on various aspects of SCUBA diving.

In the valedictory function, A. Balasubramani, welcomed the gathering, Prof. A. Ramu delivered valedictory address and stressed the necessity of the training, Dr.S. Kannan felicitated the participants and Dr.C.M. Ramakritinan Organizing Secretary proposed Vote of Thanks. The seminar cum awareness programme was attended by 58 participants from various institutions in Tamil Nadu along with Research scholars of the Department of Marine and Coastal Studies, MKU and general public of Pudumadam village attended the programme.



LIST OF REGISTERED PARTICIPANTS

S. No	Name and Address
1	M.B. Salman, M.Sc., II year, Jamal Mohamed College, Trichy.
2	Dr. S. Thangaraj, Assistant Professor, PG & Research Dept of Zoology, National College, Trichy.
3	Riyas Ahamed, P., M.Sc. (Botany), Jamal Mohamed College, Trichy.
4	Arun Karthick, Research Scholar, Department of Marine Science, Bharathidasan University, Trichy.
5	A. Lilly Christy , M.Sc., II year, Department of Marine Science, Bharathidasan University, Trichy.
6	R.Ajithkumar, M.Sc., Biotechnology, Bharathidasan University, Tiruchirappalli - 620 024.
7	M. Marikannan, M.Sc. Botany, V.H.N.S.N College, Viruthunagar , Mobi. 9655345698
8	V. Raja, M.Sc. Botany, V.H.N.S.N College, Viruthunagar Mobi.7418775359
9	V. Muneeswaran, M.Sc. Botany, V.H.N.S.N College, Viruthunagar Mobi.9677615816
10	P.Rameshkumar , Assistant Professor, N.M.S.S.V.N College, Nagamalai, Madurai
11	M.Glory Jasmine, Assistant Professor, N.M.S.S.V.N College, Nagamalai, Madurai
12	R.Anitha Jothi , Assistant Professor, N.M.S.S.V.N College, Nagamalai, Madurai
13	Abirami.M, II M.Sc Biochemistry, N.M.S.S.V.N College, Nagamalai, Madurai
14	Ajitha.A, II M.Sc Biochemistry, N.M.S.S.V.N College, Nagamalai, Madurai
15	Akilandeswari. C, II M.Sc Biochemistry, N.M.S.S.V.N College, Nagamalai, Madurai
16	Anitha.S, II M.Sc Biochemistry, N.M.S.S.V.N College, Nagamalai, Madurai
17	Dhivya.K, II M.Sc Biochemistry, N.M.S.S.V.N College, Nagamalai, Madurai
18	Jenifer. S, II M.Sc Biochemistry, N.M.S.S.V.N College, Nagamalai, Madurai
19	Sarala.B, II M.Sc Biochemistry, N.M.S.S.V.N College, Nagamalai, Madurai
20	Selvi.S, II M.Sc Biochemistry, N.M.S.S.V.N College, Nagamalai, Madurai
21	Usha priya.T, II M.Sc Biochemistry, N.M.S.S.V.N College, Nagamalai, Madurai
22	Ajithkumar.R, II M.Sc Biochemistry, N.M.S.S.V.N College, Nagamalai, Madurai
23	Jabez Jerry, II M.Sc Biochemistry, N.M.S.S.V.N College, Nagamalai, Madurai
24	Sivakumar V, II M.Sc Biochemistry, N.M.S.S.V.N College, Nagamalai, Madurai
25	T.D. Vengateshwaran, Department of Marine Science, Bharathidasan University, Tiruchirappalli
26	K. Kowsalya, M.Sc., Student, Department of Marine Science, Bharathidasan University, Tiruchirappalli
27	A. Arunachalam, Dept. of PG, Microbiology, Dr. Zakir Hussain College Ilayangudi, Shivagangai
28	A. Jeeva, Dept. of PG, Microbiology, Dr. Zakir Hussain College Ilayangudi, Shivagangai - 630702
29	G. Mummoorthy, Dept. of PG, Microbiology, Dr. Zakir Hussain College Ilayangudi, Shivagangai-
30	Dr.T. Ramesh , Assistant professor, Department of Zoology , Vivekananda College, Madurai.

31	R. Karunamoorthy, I M.Sc., Zoology , Vivekananda College, Madurai.
32	T. Arunkumar, I M.Sc., Zoology , Vivekananda College, Madurai.
33	T. Sabarinathan, I M.Sc., Zoology , Vivekananda College, Madurai.,
34	T. Susenthiran, I M.Sc., Zoology , Vivekananda College, Madurai.
35	Y. Jenifer Christy, Department of Molecular Biology, School of Biological Sciences, Madurai Kamaraj University, Madurai.
36	Y. Anto Melvin Jose, Sathyabama University, Chennai.
37	M Cynthia Andrew, M Sc, Student, Department of Marine Science, Bharathidasan University, Trichy
38	Sakthivel, R., 1st M Sc Botany, Jamal Mohamed College , Tiruchirappalli – 620003
39	Tanya Prasad, M.Sc., Student, Department of Marine Science, Bharathidasan University, Tiruchirappalli
40	M Priyanka, M.Sc., Student, Department of Marine Science, Bharathidasan University, Tiruchirappalli
41	S. Venugopal, M.Sc., Department of Marine Science, Bharathidasan University, Tiruchirappalli
42	Johnthini. M, M.Sc., Department of Marine Science, Bharathidasan University, Tiruchirappalli
43	S. Rajamanickam, M.Sc., Department of Marine Science, Bharathidasan University, Tiruchirappalli
44	K. Akila, M.Sc., Department of Marine Science, Bharathidasan University, Tiruchirappalli
45	Tirumurugan M, II M.Sc., Zoology, Vivekananda College, Madurai.
46	Aditya Mohan Menon, II M.Sc., Zoology, Vivekananda College, Madurai.
47	T. Indirapriyadarshini, M.Sc, Department of Marine Science, Bharathidasan University, Trichy
48	S. Perumal, M.Sc., II year, Jamal Mohamed College, Trichy.
49	K. Kaleeswaran, Dr. Zakir Hussain College Ilayangudi, Shivagangai- 630702
50	S. Aravindan, Dr. Zakir Hussain College Ilayangudi, Shivagangai- 630702
51	Kannadasan, Dr. Zakir Hussain College Ilayangudi, Shivagangai- 630702
52	Dr. Peer Mohamed, Dr. Zakir Hussain College Ilayangudi, Shivagangai- 630702
53	A. Aney, CMST, Rajakamangalam, Nagarkoil
54	D. Parvathy, CMST, Rajakamangalam, Nagarkoil
55	M. M. Malini, S.T. Hindu College, Nagarkoil
56	Dr. S. Abideen, Associate prof and Head, Dr. Zakir Hussain College Ilayangudi, Shivagangai
57	Miss Mahalakshmi, Bharathidasan University, Tiruchirappalli - 620 024.
58	Aravind, M.Sc., Dept of Marine and Coastal Studies, SEEN, MKU, Madurai
59	Dharmadurai, M.Sc., Dept of Marine and Coastal Studies, SEEN, MKU, Madurai
60	K. Rankeesh, Research Scholar, Dept of Marine and Coastal Studies, SEEN, MKU, Madurai
61	B. Rajeeswari, Research Scholar, Dept of Marine and Coastal Studies, SEEN, MKU, Madurai

Report on
Two Day National Seminar cum Workshop on Solar Thermal and Photovoltaic
Techniques
5th and 6th October, 2017

A Two Day National Seminar cum Workshop on Solar Thermal and Photovoltaic Techniques was organized by the Department of Solar Energy, School of Energy, Environment and Natural Resources, Madurai Kamaraj University during 5th and 6th October, 2017. The themes of the Seminar included Solar Cell Materials, Solar Thermal Techniques, Solar Radiation Modeling and Emerging Challenges and Future Prospects in Solar Technology. The Seminar also emphasized the need for concerted actions for a sustainable development.

Dr. P. P. Chelladurai, Honorable Vice Chancellor, Madurai Kamaraj University inaugurated the seminar and Prof. K. Muthuchelian, Chairperson, School of Energy, Environment and Natural Resources, Madurai Kamaraj University delivered the special address. Dr. Suda Uthanna, Professor, Thin Film Laboratory, Department of Physics, Sri Venkateswara University, Tirupati delivered the keynote address.

Dr. Suda Uthanna, Thin Film Laboratory, Department of Physics, Sri Venkateswara University, Tirupati delivered an invited talk on 'Solar Thin Film Materials for Photovoltaic Applications'. Dr. R.V. Krishnakumar, Associate professor, Department of Physics, Thiagarajar College, Madurai rendered a lecture on 'Novel Materials for Solar Cells'. Mr. P. Anbazhagan, Chief Executive Officer, MAS Solar System Pvt. Ltd., Coimbatore gave a talk on 'Principles and Working of Solar Thermal Devices'.

Dr. Srinivasan, Associate professor, Department of Physics, Thiagarajar College, Madurai delivered a note on 'Electron Density and Charge Transfer Studies on Solar Grade GaAs'. Mr. S. S. Raghunandan, Vice President, Kotak Urja Private Limited, Bangalore gave a talk on 'Solar Photovoltaic Systems'. Dr. A. Sreekumar, Assistant Professor, Centre for Green Energy Technology, Pondicherry University delivered a special lecture on 'Working of Solar Water Heating Systems'.

Around 57 students from various colleges in South India participated and presented research papers during the seminar. The valedictory address was given by Prof. Dr. V. Chinniah, Registrar (i/c), Madurai Kamaraj University and certificates were distributed to the participants.











List of Participants

Sl.No	Name and Address	Signature
1.	K. DEVA ARUN KUMAR RESEARCH SCHOLAR ARUL ANANDAR COLLEGE	
2.	A. M. S. ARULANANTHAM. (Research Scholar).	
3.	R. DAVID PRABU RESEARCH SCHOLAR AAC	
4.	Dr. J. S. P. CHITRA, ASST. PROF. Dept. of PHYSICS, SRI MEENAKSHI GOVT. ARTS COLLEGE FOR WOMEN(A), MADURAI - 2	
5.	Mrs. S. AROCKIA SHYAMALA PANIYARASI Assistant Prof in Physics Lady Doak College	
6.	Ms. M. MERCY Assistant prof in physics. Lady Doak college	
7.	MS. G. ANEUPRABHA. M.Sc PHYSICS Lady Doak College.	
8.	P. Sarumathi M.Sc. PHYSICS Lady Doak college	

Sl.No	Name and Address	Signature
9	S.Rehila Karolin Blessina M.Sc Physics Lady Doak College	Rehila
10	R.B. Sinekka M.Sc Physics Lady Doak College	R.B. Sinekka
11	Dr. M. KAVITHA, Asst. prof of physics The Madura College, Madurai - 11	M. Kavitha
12	Dr. R. Vishnu priya, Asst prof of phy The Madura College, Madurai - 11	R. Vishnu priya
13	Dr. P. ASOKANATHAN, Associa Prof VITVET College (Arts) Viduthala - 626 001	P. Ashwin
14	U-VALVITTA AYYANAR, M.SC (PHYSICS) GOVT. ARTS college, melur	U. Valvitta Ayyanar
15	P. Thangaparthi. M.SC (PHY) GOVT. ARTS college, melur.	P. Thangaparthi
16	Prof. J. Anitha Sisonanni. SST, MKU, MDU-21.	J. Anitha Sisonanni
17	Dr. K. Saravanalummar, Asst. Prof. in Physics Kongunadu Arts and Science College, Coimbatore - 29.	K. Saravanalummar
18	Dr. K. MAHALAKSHMI, Asst. prof in physics, providence college for women, Coonoor	K. Mahalakshmi
19	Mr. S. Jainulabdeen, pho. scholar M.U. university	S. Jainulabdeen

Sl.No	Name and Address	Signature
20	A. muntaz parveen, student	
21	Dr. M. prema Rani, Associate professor of physics The Madhwa College, Madhwa -11	M. prema Rani
22	V. Karitha Research scholar, Anna University Regional Campus, Madhwa -19.	V. Karitha
23.	S. Rasool, Research scholar Dept. of physics, S.V. University, Tirupati Andhra Pradesh.	S. Rasool
24.	K. SARITHA, Research scholar Dept. of Physics, S.V. University, Tirupati Andhra Pradesh.	K. Saritha
25.	G. PHANEENDRA REDDY (Research scholar) Dept of Physics, S.V. University, Tirupati Andhra Pradesh.	G. phaneendreddy
26	V. Mallikarjuna Reddy (student) Dept of Physics, S.V.U. Tirupati Andhra Pradesh.	V. Mallikarjuna Reddy
27.	M. Hanikrishnan. Research scholar, School of Chemistry, MKU, Madhwa.	M. Hanikrishnan
28.	P. Sreenath, (student) Dept. of physics, S.V. University Tirupati, A.P.	P. Sreenath
29.	R.K. Pandiyan, (Student) Dept. of physics, S.V. university, Tirupati, A.P.	R.K. Pandiyan
30	P. Padmapriyanka, (student) Dept. of physics, S.V. university, Tirupati Andhra Pradesh.	P. Padmapriyanka

Sl.No	Name and Address	Signature
31.	L. Sinduja (Student) Dept. of physics, S.V. University, Tirupathi, Andrapradesh.	L. Sinduja.
32.	M. Tejaswini, (Student). Dept. of physics, S.V. University, Tirupathi, Andrapradesh.	M. Tejaswini
33.	R. chengalamma. (Student) Dept. of physics (S.V. University.) Tirupathi, A.P	R. chengalamma
✓ 34.	S. Sathish Kumar (Student) Dept. of physics. (C.P.A. College) Bodinayakanur, Theni	S. Sathish
✓ 35.	RAJA VIGNESH. P (Student) Dept. of physics (C.P.A. College) Bodinayakanur, (Theni)	P. Raja Vignesh
✓ 36.	DINESH. M (Student) Dept. of Physics (C.P.A. College) Bodinayakanur (Theni)	M. Dinesh
✓ 37.	R. INDRAJITH (Student) Dept. of Physics III year (C.P.A. College) Bodinayakanur, Theni - 625531	R. Indrajith 05.10.17
✓ 38.	KASTHURI. K (Student) Dept. of physics III. BSc. (Phy) (C.P.A. College) Bodinayakanur, Theni - 625513	K. Kasthuri
✓ 39.	MUTHUMANI. S (Student) Dept. of Physics III. BSc (C.P.A. College) Bodinayakanur, Theni - 625513	S. Muthuman
✓ 40.	JENIFER. K (Student) Dept. of Physics III. BSc (C.P.A. College) Bodinayakanur. Theni	K. Jenifer
✓ 41.	VAITHEESWARI. K. (Student) Dept. of physics III. BSc (C.P.A. College) Bodinayakanur	K. Vaitheeswari

Sl.No	Name and Address	Signature
✓ (42)	MATHIVATHANAN.R (Student) III BSc (physics) Dept of physics (C.P.A) college Bodinayakanur	
✓ (43) Faculty	A. ANIROSE, (Staff) Department of physics, CPA College, Bodi	A. Ani
✓ (44) Faculty	M. KAYALVIZHI, (Staff) Department of physics, CPA college, Bodinayakanur	M. Kayalvizhi
45	M. Kandasamy School of chemistry Maulana Abul Kalam Azad University	
46	V. SELVARAJU, Dept of chemistry BIT - CAMPUS, ANNA UNIVERSITY Research scholar TIRUCHIRAPPALLI - 620024	V. Selvaraju
47	S. VELANGIANI, Research Scholar, Department of Chemistry, BIT - campus, Anna University Tiruchirappalli - 620024	S. Velangiani
(48)	M. Karthik (Student) Bsc, Physics Dept. of physics (P.K.N. college) Tirumangalam	M. Karthik
(49)	D. Vasantha kumar (Student) Bsc, Physics Dept of physics (P.K.N college) Tirumangalam	D. Vasantha kumar
✓ (50) Faculty	Prof. R. Ganeshan (Principal of AOD MICRO P.K.N. Arts and Science College (Tirumangalam) Biology)	
✓ 51	P. Justin (Research scholar) School of physics, MKU	
(52)	Mr. L. S. DEVA SENATHI BATHI, Full time Research Scholar, Dept. of Green Energy Technology, Pondicherry	

Report on
Energy Fest' 19
05th April, 2019

A National Level Conference – ENERGY FEST'19 was organized by the School of Energy, Environment and Natural Resources, Madurai Kamaraj University on 05th April, 2019. The conference was entitled 'Recent Trends and Prospects in Energy, Environment and Natural Resources'. This conference was a forum to bring together researchers, scientists, and industry professionals to discuss innovative ideas on diverse topics. The areas of focus of the conference included Recent trends in Renewable Energy, Environmental Pollution Monitoring and Control, Biodiversity Resources, Conservation and their Management, Marine Environment and Nanotechnology.

Prof. Dr. M. Krishnan, Honorable Vice Chancellor, Madurai Kamaraj University inaugurated the conference. Prof. Dr. K. Muthuchelian, Former Vice Chancellor, Periyar University, Salem, Head and Chairperson, School of Energy Sciences, Madurai Kamaraj University delivered the Presidential Address.

Three special lectures were delivered by eminent personalities from different disciplines. Dr. P. Pandaram, Scientific Officer 'G', Kudankulam Nuclear Power Project, delivered an invited lecture on Nuclear Power Plants. Prof. Dr. R. Ramaraj, Emeritus Scientist, School of Chemistry, Madurai Kamaraj University delivered a special talk in Prof. C. E. Sooriyamoorthy Manivizha Endowment Lecture. Prof. Dr. R. Babu Rajendran, Head, Department of Environmental Biotechnology, School of Environmental Sciences, Bharathidasan University, Tiruchirappalli delivered an invited talk in Prof. P. Muthusubramanian Manivizha Endowment Lecture.

The conference included 75 students and staff from various colleges and institutions in Tamil Nadu. It was an excellent opportunity to gather together, interact and exchange findings and views during the conference sessions. The conference presented useful topics on various

aspects of Energy and the Environment. The conference also included oral and poster presentations by students and research scholars.

The valedictory ceremony was presided by Prof. Dr. K. Muthuchelian, Head and Chairperson, School of Energy Sciences, Madurai Kamaraj University and was felicitated by Prof. R. Ramanibai (Retd.), Department of Zoology, University of Madras, Chennai.





MADURAI KAMARAJ UNIVERSITY

(University with Potential for Excellence)

School of Energy, Environment and Natural Resources

Madurai- 625 021, Tamil Nadu



Cordially invites you for the Inauguration of

ENERGY FEST'19

**National Level Conference on Recent Trends and
Prospects in Energy, Environment and Natural Resources**

*to be held in the Seminar Hall of the School of Energy Sciences
on Friday, April 05, 2019 at 10:00 A.M*

Prof. Dr. M. Krishnan

Vice- Chancellor

Madurai Kamaraj University, Madurai

Inaugurates the function

Prof. Dr. K. Muthuchelian

Former Vice-Chancellor

Periyar University, Salem

Head and Chairperson

School of Energy, Environment and Natural Resources

Madurai Kamaraj University, Madurai

Delivers Presidential Address

Dr. P. Pandaram

Scientific Officer 'G'

Kudankulam Nuclear Power Project, Kudankulam

Delivers Special Address

Prof. Dr. R. Ramaraj

Emeritus Scientist

School of Chemistry, Madurai Kamaraj University

Delivers Prof. C. E. Sooriamorthy Manivizha Endowment Lecture

Prof. Dr. R. Babu Rajendran

Head - Department of Environmental Biotechnology

School of Environmental Sciences

Bharathidasan University, Tiruchirappalli

Delivers Prof. P. Muthusubramanian Manivizha Endowment Lecture

All are cordially invited.....



MADURAI KAMARAJ UNIVERSITY

(University with Potential for Excellence)

School of Energy, Environment and Natural Resources
Madurai- 625 021, Tamil Nadu



Cordially invites you for the Valedictory of

ENERGY FEST'19

**National Level Conference on Recent Trends and
Prospects in Energy, Environment and Natural Resources**

*to be held in the Seminar Hall of the School of Energy Sciences
on Friday, April 05, 2019 at 04.30 P.M*

Prof. Dr. V. Chinniah

Registrar

Madurai Kamaraj University, Madurai

**Delivers the Valedictory Address and
Distribute the Certificates**

Prof. Dr. K. Muthuchelian

Former Vice-Chancellor

Periyar University, Salem

Head and Chairperson

School of Energy, Environment and Natural Resources

Madurai Kamaraj University, Madurai

Will Preside Over

Prof. Dr. R Ramanibai (Retd.)

Department of Zoology University of Madras, Chennai

Will Felicitate the Function

All are cordially invited.....

Report on
“Awareness Programme on Marine Biodiversity Conservation in the Gulf of Mannar
Biosphere Reserve Region”
Organized by ICAR-NBFGR, in collaboration with MKU
June 17 &18, 2019

The two days “Awareness programme on Marine Biodiversity Conservation in the Gulf of Mannar Biosphere Reserve region” was organized by the ICAR-National Bureau of Fish Genetic Resources, Lucknow in collaboration with Department of Marine and Coastal Studies, School of Energy, Environment and Natural Resources, Madurai Kamaraj University at Pudumadam on 17th and 18th June 2019. On first day of Inauguration, 17th June 2019, Dr.T.T. Ajith Kumar, Principal Scientist & Officer-in-Charge, ICAR-NBFGR, Cochin welcomed the gathering.

Dr.Kuldeep K Lal, Director, ICAR-NBFGR, Lucknow presided the programme, and highlighted the need for conservation of marine genetic resources and its socio-economic benefits to the coastal population. Further he expressed his interest to share the technological expertise of the institute with the local body authorities to maintain the genetic pool in the Gulf of Mannar region.

Prof. Dr.M Krishnan, Vice Chancellor of our University MKU inaugurated this august function. In his inaugural address, he stressed that all scientific findings in higher education should reach common man for their benefit without which the findings would become void. Hence, the fisher folk should be aware of the need to maintain the genetic pool in a sustainable manner for their long-term livelihood. He pointed out that the biosphere reserve possessed genetic elements evolved over millions of years, he said the local fishing population which eked out a living by fishing in the region should cooperate with the authorities in the conservation measures.

The Chief Guest address was given by Dr.B Meenakumari, former Chairperson, National Biodiversity Authority (NBA) and Deputy Director General of Fisheries, ICAR and she expressed the need to strictly implement the Biological Diversity Act, 2002, in order to protect the interest of fishermen in access to benefit sharing of marine resources in the Gulf of Mannar region. During inauguration she released an awareness manual on the marine biodiversity conservation and the first copy was received by the Vice Chancellor of our University Prof. Dr. M. Krishnan.

Mr.T.K. Ashok Kumar, I.F.S., Wildlife Warden, Gulf of Mannar Marine National Park, Ramanathapuram has delivered felicitation address. In his address, he said that over two lakh people were dependent on marine genetic resources in the GoM region for their livelihood and, hence, more research was required to focus on the yet-to be identified new biological resources in the region. Then Dr.S. Kannan, Chairperson, School of Energy Sciences, Madurai Kamaraj University, Madurai also felicitated this function.

Dr.C.M. Ramakritinan, Head, Department of Marine and Coastal Studies, School of Energy, Environment and Natural Resources, Madurai Kamaraj University proposed vote of thanks in the inaugural function.

On 18th June 2019, the Valedictory function was held and Dr.Kuldeep K. Lal, Director, ICAR-NBFGR, Lucknow welcomed the gatherings.

Dr.M. Sudhakar, Director, CMLRE, Ministry of Earth Sciences delivered the valedictory address. In his speech he stressed the conservation of marine resources and its importance to the fishermen for their income generation.

In the valedictory function, the Chief Guest address was delivered by Shree Veera Raghava Rao, I.A.S., District Collector, Ramanathapuram District in this address, he said that next to the agriculture, the fishing activity is the second important income generating activity of the people from this district and they contributed more than 20% catch from Ramanathapuram District alone from the whole Tamil Nadu catch and it increased from 94 MT during 2017 to 145 MT during 2018.

In this function, Dr.K.Balakrishnan, Special Officer, Professor & Head, Department of Immunology, School of Biological Sciences, MKU and Dr. Kathavarayan Deputy Director, Tamil Nadu State Fisheries Department delivered the felicitation address and sharing their knowledge for the conservation of marine resources for our future generation.

In this programme, the resource persons / invited guest speakers Dr. A.R.T. Arasu, Dr. Ajmal Khan, Dr.M. Anand, Dr.J.Sesh Serebiah, Dr. Haq, and Mr. Madhu delivered the inspiring speeches in the aspects of marine resources, importance and their conservation needs for next generation. The function was attended by Dr.Kathrivelpandian, Organizing secretary, Dr.M.Anand and Dr.A.Balasubramani, Madurai Kamaraj University.

In this Valedictory function, Dr.T.T. Ajith Kumar, Principal Scientist & Officer-in-Charge, ICAR-NBFGR, Cochin proposed vote of thanks.

The funding support for conducting this programme was given by the ICAR-NBFGR and CMLRE-MoES. The function was attended by more than 100 participants from fishermen and fisherwomen, resource persons from various institutions in Tamil Nadu and general public of Pudumadam village.



"Awareness Programme on Marine Biodiversity Conservation in the Gulf of Mannar Biosphere Reserve region"

Organized by ICAR-NBFGR, in collaboration with MKU (June 17 & 18, 2019)

List of Participants

Awareness programme on marine biodiversity Conservation in Gulf of Mannar				
During 17 & 18 June 2019.				
S.No	NAME	VILLAGE	PHONE NUMBER	SIGNATURE
1	செவ்வாய் கிருஷ்ணன்	செவ்வாய்	7708214994	
2	செவ்வாய் கிருஷ்ணன்	செவ்வாய்	8807366713	
3	கொழும்பு கிருஷ்ணன்	"		
4	T. Balan	"		
5	செவ்வாய் கிருஷ்ணன்	"		
6	செவ்வாய் கிருஷ்ணன்			
7	R. Padmini	செவ்வாய்	9600785861	R. Padmini
8	S. Indira	Vedhalai	6379737109	S. Indira
9	R. Anusya	Vedham	9600785861	R. Anusya
10	P. Saraswathi	"	9944596759	P. Saraswathi
11	R. Nambu muneeswar	"	8870002559	R. Nambu muneeswar
12	M. Saraswathi	"	8870133740	M. Saraswathi
13	S. Pechchiyammal	"	8124446525	S. Pechchiyammal
14	R. Selvi	"	9894637695	R. Selvi
15	M. Indira	"	9791667506	M. Indira
16	S. Rani	"	8838584209	S. Rani
17	N. Rujemai	"	9865130637	N. Rujemai
18	S. Lakshmi	"	9791667506	S. Lakshmi
19	S. Sivakumar	Vedhalai	9602964147	S. Sivakumar
20	செவ்வாய் கிருஷ்ணன்	4510110	9790066011	செவ்வாய் கிருஷ்ணன்
21	செவ்வாய் கிருஷ்ணன்	4510110	7708041271	செவ்வாய் கிருஷ்ணன்
22	செவ்வாய் கிருஷ்ணன்	4510110		செவ்வாய் கிருஷ்ணன்
23	செவ்வாய் கிருஷ்ணன்	4510110	7418430546	செவ்வாய் கிருஷ்ணன்
24	செவ்வாய் கிருஷ்ணன்	"	9488265725	செவ்வாய் கிருஷ்ணன்
25	செவ்வாய் கிருஷ்ணன்	"		செவ்வாய் கிருஷ்ணன்
26	R. Suresh Kumar	செவ்வாய் கிருஷ்ணன்	8903789684	R. Suresh Kumar
27	P. Anusya	செவ்வாய் கிருஷ்ணன்	90029131501	P. Anusya
28	K. Rajesh	"	7092112558	K. Rajesh
29	S. Suresh Kumar	"	96299410374	S. Suresh Kumar
30	R. Suresh Kumar	"	9092633544	R. Suresh Kumar
31	S. Suresh Kumar		9677823157	S. Suresh Kumar
32	A. Suresh Kumar	செவ்வாய் கிருஷ்ணன்	9047573939	A. Suresh Kumar

S.No	NAME	VILLAGE	PHONE NUMBER	SIGNAT
33	சு.நா.ஜி.இலட்சுமி	48602	9042339729	
34	சு.நா.ஜி.இலட்சுமி	48602		
35	A. சிவசுந்தரி	48602	9791395764	சு.நா.ஜி.
36	S.S. சுவாமிநாதன்	48602	9791395764	சு.நா.ஜி.
37	N. சுவாமிநாதன்	சு.நா.ஜி.	9952492706	சு.நா.ஜி.
38	சு.நா.ஜி.	சு.நா.ஜி.	9789669429	சு.நா.ஜி.
39	M. சுவாமிநாதன்	சு.நா.ஜி.	9677828471	சு.நா.ஜி.
40	S. சுவாமிநாதன்	சு.நா.ஜி.	7502830825	சு.நா.ஜி.
41	சு.நா.ஜி.	சு.நா.ஜி.	9500732576	சு.நா.ஜி.
42	சு.நா.ஜி.	சு.நா.ஜி.	9500732516	சு.நா.ஜி.
			912295815	சு.நா.ஜி.
43	C. சுவாமிநாதன்	48602	9994092214	சு.நா.ஜி.
44	சு.நா.ஜி.	48602	9944953120	சு.நா.ஜி.
45	சு.நா.ஜி.	48602	7708088362	சு.நா.ஜி.
46	A. சுவாமிநாதன்	48602	9791738984	சு.நா.ஜி.
47	சு.நா.ஜி.	48602	8820516426	சு.நா.ஜி.
48	சு.நா.ஜி.	48602		
49	S. சுவாமிநாதன்	சு.நா.ஜி.		சு.நா.ஜி.
50	M. சுவாமிநாதன்	"	9848197099	சு.நா.ஜி.
51	சு.நா.ஜி.	சு.நா.ஜி.	8489753798	S. Rangji
52	S. சுவாமிநாதன்	"	8608931428	S. Rangji
53	M. சுவாமிநாதன்	"	9789374089	M. Rangji
54	R. சுவாமிநாதன்	"	8124348711	R. Rangji
55	சு.நா.ஜி.	"	8680936135	சு.நா.ஜி.
56	சு.நா.ஜி.	"	733948342	சு.நா.ஜி.
57	சு.நா.ஜி.	"	8086950289	சு.நா.ஜி.
58	K. சுவாமிநாதன்	"	8098725603	சு.நா.ஜி.
59	சு.நா.ஜி.	"		
60	சு.நா.ஜி.	"		
61	சு.நா.ஜி.	"		
62	சு.நா.ஜி.	"		