

**REPORT OF ONE-DAY WORKSHOP ORGANISED BY CENTRES / OVERSEAS CHAPTERS**

<b>Name of Centre / Overseas Chapter:</b>		<b>The Institution of Engineers India Puducherry State Centre</b>	
<b>Title of Activity:</b>		<b>One day workshop on “Scope for Mechanical Engineers in HVAC &amp; R Sector”</b>	
<b>Activity under Divisional Board</b>		<b>Mechanical Engineering Division Board</b>	
<b>Date:</b>	10.07.2023	<b>Venue:</b>	<b>Seminar Hall Karaikal Polytechnic College, Varichikudy, Karaikal-609609</b>



**Dr. K. Senthilvel, Lecture/Mech, Karikal Polytechnic college gave introduction about program.**



**Dr. B. Radjaram, Chairman, IEI Pondicherry State Centre and IE(I) Council Member delivered the welcome address**



**Dr. D. Candane, HoD/Mech.Karikal Polytechnic college, delivered the felicitation address.**



**Er. D. Karunakaran, Committee member-Mechanical Pondicherry State Centre delivered the felicitation address.**



**Er. K.Francis, Principal, Karikal Polytechnic College Delivered the Chief guest address**



**Dr. S. Thirugnaname, Hon. Secretary delivered vote of thanks.**

**(Additional photographs attached at the end of this document)**

## Report of One-Day Seminar/Workshop

### Brief Details about the Programme:

- The program started with Thamizhthaivazhthu and Lighting of Traditional Lamp
- Dr. K. Senthilvel, Lecture/Mech, Karikal Polytechnic College gave introduction about workshop .
- Dr. B. Radjaram, Chairman IE(I), Puducherry State centre, IE(I) & Council Member delivered the welcome address.
- Dr. D. Candane, HoD/Mech., delivered the felicitation address.
- Er. D. Karunakaran, Committee member-Mechanical , Pondicherry State Centre delivered the felicitation address.
- Er. K.Francis, Principal, Karikal Polytechnic College Delivered the Chief guest address
- Dr. S. Thirougnaname, Hon. Secretary delivered vote of thanks.
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**Total No. of Participants : 106**

### Details of the Sessions:

<b>Day-1 (Forenoon) Inaugural Session</b>	<ul style="list-style-type: none"><li>• The program started with Thamizhthaivazhthu, IEI anthem and Lighting of Traditional Lamp</li><li>• Dr. K. Senthilvel, Lecture/Mech, Karikal Polytechnic College gave introduction about workshop .</li><li>• Dr. B. Radjaram, Chairman, Puducherry State centre, &amp; IE(I) Council Member delivered the welcome address.</li><li>• Dr. D. Candane, HoD/Mech., delivered the felicitation address.</li><li>• Er. D. Karunakaran, Committee member-Mechanical , Pondicherry State Centre delivered the felicitation address.</li><li>• Er. K.Francis, Principal, Karikal Polytechnic College delivered the Chief guest address</li><li>• Dr. S. Thirougnaname, Hon. Secretary, IEI PSC delivered vote of thanks.</li></ul>
<b>Day-1(Forenoon) Technical Session I</b>	<b>Mr.R.Ilandjezian, Assistant Professor, Dept of Mechanical Engg, Manakula Vinayagar Institute of Technology, Puducherry</b> delivered session I lecture on the Topic “Cold Chain & Cold Storage”.
<b>Day-1(Forenoon) Technical Session 2</b>	<b>Mr.A.Thiagarajan, Assistant Professor, Dept of Mechanical Engg, Manakula Vinayagar Institute of Technology, Puducherry</b> delivered session II lecture on the Topic “Indoor Air quality & Ventilation”.
<b>Day-1(Forenoon) Technical Session 3</b>	<b>Dr.B.Radjaram, Professor &amp; Head , Dept of Mechanical Engg, Manakula Vinayagar Institute of Technology, Puducherry</b> delivered session III lecture on the Topic “Safety with Advanced Technologies for HVAC sector”.
<b>Day-1(Afternoon) Technical Session 4</b>	<b>Dr.D.Candane, Lecturer &amp; HOD, Dept of Mechanical Engg, Karikal Polytechnic College, Karikal</b> delivered session IV lecture on the Topic “IOT for smart HVAC & R”.
<b>Day-1(Afternoon) Technical Session 5 &amp; Technical Hands on Training in HVAC&amp;R Session 6</b>	<b>Mr N. Delli Babu Regional Manager, HAIER INDIA LTD</b> delivered session V lecture on the Topic “Future of HVAC & R Sector –prospects and potential ”. Also his team conducted hands on Training on HVAC & R with Haier Appliances. Demonstration was given about AC product installation, testing, service, etc

<p><b>Day-1 (Evening ) Valedictory Session</b></p>	<p>Valedictory Address by:</p> <ol style="list-style-type: none"> <li>1. Dr. B. Radjaram, Chairman IE(I), Puducherry State centre &amp; IE(I) Council Member delivered Welcome address and chaired valedictory session</li> <li>2. Er. D. Karunakaran, Committee member- Mechanical Pondicherry State Centre delivered the short report on this one day workshop.</li> <li>3. Dr. S. Thirugnaname, Hon. Secretary delivered vote of thanks.</li> </ol> <p>Certificates were distributed to 106 participants in the presence of all the dignitaries of the program.</p>
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**Lightening of Traditional Lamp by Chief Guest**



**Lightening of Traditional Lamp by IE(I) PSC Chairman & Honorary secretary**



**Honouring the Chief Guest with a Memento & Shawl**



**Participants**



**Technical Session 1 - Invited Lecture by Mr.R.Ilandjezian, AP/Mech, MIT**



**Technical Session 1 - Invited Lecture by Mr.R.Ilandjezian, AP/Mech, MIT**



**Technical Session 2 - Invited Lecture by Mr.A.Thiagarajan, AP/Mech, MIT**



**Technical Session 2 - Invited Lecture by Mr.A.Thiagarajan, AP/Mech, MIT**



**Technical Session 3 - Invited Lecture by Dr.B.Radjaram, Prof & Head, MIT**



**Technical Session 3 - Invited Lecture Dr.B.Radjaram, Prof & Head, MIT**



**Technical Session 4 - Invited Lecture Dr.D.Candane, Lecturer & Head, KPTC**



**Technical Session 4 - Invited Lecture Dr.D.Candane, Lecturer & Head, KPTC**



**Technical Session 5 - Invited Lecture by Mr N. Delli Babu Regional Manager, HAIER India Ltd**



**Technical Session 6 - Hands on Training by HAIER Team**



**Technical Session 6 - Hands on Training**



**Valedictory & Certificate distribution Session**



**Valedictory & Certificate distribution Session**



**Feedback session**




**Feedback session**



**Feedback session**

## Program Banner




**The Institution of Engineers (India)**  
(Established 1920, Incorporated By Royal Charter 1935)  
**PUDUCHERRY STATE CENTRE**  
(Ground Floor, PWD Campus, No: 63, N.S.C.Boosa Salai, Puducherry-605001)  
www.ieipsc.org, Email: puducherryisc@ieindia.org, Mobile : 9489766701

Organizes

**One day Workshop On**  
**SCOPE FOR MECHANICAL ENGINEERS IN HVAC & R SECTOR**  
(Heating, Ventilation, Air Conditioning & Refrigeration)

Monday, 10<sup>th</sup> JULY, 2023

Under the Aegis of  
**MECHANICAL ENGINEERING DIVISION BOARD, IE(I)**  
In Association with  
Department of Mechanical Engineering  
 **KARAIKAL POLYTECHNIC COLLEGE**  
(Sponsored by Govt. of Puducherry)  
Varichikudy, Karaikal-609 609

## Copy of Invitation



**The Institution of Engineers (India)**  
(Established 1920, Incorporated By Royal Charter 1935)  
(A Scientific & Industrial Research Organization)  
(A century of Service to the Nation)  
**PUDUCHERRY STATE CENTRE**  
(Ground Floor, PWD Campus, No: 63, N.S.C.Boosa Salai, Puducherry-605001)  
www.ieipsc.org, Email: puducherryisc@ieindia.org, Mobile : 9489766701

The Chairman, Honorary Secretary and Members of The IEI Puducherry State Centre  
Cordially invites you for the

**One Day Workshop on**  
**Scope for Mechanical Engineers in HVAC&R Sector**  
(Heating, Ventilation, Air Conditioning & Refrigeration)  
On Monday 10<sup>th</sup> July, 2023 at 9.30.a.m

Under the Aegis of  
**MECHANICAL ENGINEERING DIVISION BOARD, IE(I)**  
In Association with  
Department of Mechanical Engineering  
 **KARAIKAL POLYTECHNIC COLLEGE**  
(Sponsored by Govt. of Puducherry)  
Varichikudy, Karaikal-609 609

**Mr. K. FRANCIS, M.E.**  
PRINCIPAL  
KARAIKAL POLYTECHNIC COLLEGE,  
Karaikal  
Will be the Chief Guest

**Dr.S.THROUGNANAME, FIE., &**  
Honorary Secretary, IEI PSC  
Proposes Vote of thanks

**Dr. B. RADJARAM, FIE.,**  
Chairman, IEI PSC  
Welcomes

**Dr. K. JAYARAMAN, MIE**  
Committee Member

**Dr. D. CANDANE, M.Tech., Ph.D.**  
HOD/Mech. ETC.  
Felicitates

**Dr. D. KARUNAKARAN, FIE.**  
Committee Member

**Venue: Conference Hall, Karaikal Polytechnic College**

## Copy of one day workshop Brochure

### One day Workshop on Scope for Mechanical Engineers in HVAC&R Sector



JULY 10, 2023

REGISTRATION



#### Registration Fee

Students (IEI Student Member & IEI Members): Rs.100/-

Students (Non-IE Members) : Rs.150/-

Delegates from Academic / Research Institutions: Rs.300/-

Delegates from Industries: Rs.500/-

Last Date for Registration is 08.07.2023

#### Payments

Payments are optional through Cheque/ NEFT/ UPI/ G-Pay/ Demand Draft, drawn in favour of "The Institution of Engineers (India), Puducherry State Centre" payable at Puducherry.

#### Bank Details

Name of Beneficiary :The Institution of Engineers (India)  
Puducherry State Centre

Name of Bank : UCO Bank, Grand bazaar, Puducherry

A/c No : 01300110014608

IFSC Code : UCBA0000130,

UPID : ioe@ucobank

BHIM UPI payment Accepted



For Registration



## The Institution of Engineers (India)

"102 Years of Relentless Journey towards Engineering  
advancement for Nation-building since 1920"

One day Workshop

On

Scope for Mechanical Engineers in  
HVAC&R Sector

JULY 10, 2023

ORGANISED BY

The Institution of Engineers (India)

PUDUCHERRY STATE CENTRE



Under the Aegis of  
Mechanical Engineering Division Board IE(I)  
In Association with  
Department of Mechanical Engineering



KARAIKAL POLYTECHNIC  
COLLEGE

(Sponsored by Govt. of Puducherry)  
Varichikudy, Karaikal-609609

Technology Partner

**Haier**  
Inspired Living

#### THE INSTITUTION OF ENGINEERS (INDIA):

The Institution of Engineers (India) or IEI is the largest multidisciplinary professional body that encompasses 15 engineering disciplines and gives engineers a global platform from which to share professional interest. IEI has membership strength of over 0.8 million. Established in 1920, with its headquarters at 8 Gokhale Road, Kolkata - 700020, IEI has served the engineering fraternity for over nine decades. In this period of time it has been inextricably linked with the history of modern-day engineering. In 1935, IEI was incorporated by Royal Charter and remains the only professional body in India to be accorded this honour. Today, its quest for professional excellence has given it a place of pride in almost every prestigious and relevant organization across the globe. IEI functions among professional engineers, academicians and research workers. It provides a vast array of technical, professional and supporting services to the Government, Industries, Academia and the Engineering fraternity, operating from 125 Centres located across the country. The Institution has established R&D Centres at various locations in the country and also provides grant-in-aid to its members to conduct research and development on engineering subjects. IEI has been recognized as Scientific and Industrial Research Organization (SIRO) by the Ministry of Science & Technology, Govt. of India and besides conducting its own research, provides Grant-in-Aid to UG/PG/ PhD students of Engineering Institutes & Universities. IEI holds the International Professional Engineers (IntPE) Register for India International Professional

#### ABOUT IEI PUDUCHERRY STATE CENTRE:

The Institution of Engineers (India), Puducherry State Centre was established on 31st July 2010 It is functioning at Public Works Department of Puducherry. IE (I), PSC Members are spread over in entire union territory of Puducherry Viz: Puducherry, Karaikal, Yanam, Mahe with a total strength of more than 700 Members, as per HQ Communication. There are three Institutional Member, 25 Students chapter started in six Engineering college with more than 1500 students.

IE(I)PSC conducted landmark program like conferment of Honorary Fellowship to Dr. Kiran Bedi, Lt, Governor of Puducherry in 2019, southern region students conclave in 2023 national and international conference in NIT Puducherry. Conducting traffic survey in Puducherry city with police department to provide data for traffic problem, celebrate all statutory days in grand manner.

#### ABOUT PUDUCHERRY & KARIKAL

Puducherry, the capital of the Union Territory was once the original headquarters of the French in India, is situated on the Coromandel Coast of the Bay of Bengal. The Union Territory of Puducherry spread in an area of 490 Sq. Km. comprises of four erstwhile French establishments of Puducherry, Karaikal, Mahe and Yanam. Karaikal District occupies an area of 157 square kilometres (61 sq miles approx.). Karaikal town which is situated 16 km. north of Nagappattinam and 12 km. south of Tharangambadi is the regional headquarters. Karaikal region is made up of the Municipality of Karaikal, and Communes of Neravy, Tirumalairajanpattinam, Thirunallar, Nedungadu and Kottucherry..

#### Place to Visit

Karaikal Ammaiyyar Temple, Sri Dharbaraneswara Swamy Temple,  
Mastan Syed Dawood dargah, lady Angels church

#### About our Institution:

Karaikal polytechnic college was established in the year 1987-88 to fulfill the long cherished ambition of the people of Karaikal, and to meet the demand of the technician education as a result of rapid industrialization in the Karaikal region of the Union territory of Puducherry. The administration of the Polytechnic college is managed by an autonomous registered society, formed by the Government of Puducherry in the name of Pondicherry Institute of Post Matric Technical Education (PIPMATE) governed by a General Body under the chairmanship of Secretary for Education, Government of Pondicherry and Additional Directorate of Technical Education, Government of Pondicherry as member Secretary. Admission is made as per the rules and regulations laid down by the AICTE (All India Council for Technical Education), Government of Puducherry and State Board of Technical Education. Limited intake of students, strictly on the basis of merit, is trained by a team of experienced and committed staff members. Examinations are conducted by the State Board of Technical Education, Tamil Nadu and it awards Diploma certificates. Further the students are subjected to regular internal assessment by conducting daily and weekly tests with full emphasis on practical. Apart from the pursuit of academic excellence the students are actively involved in various extracurricular activities in sports, NSS and other activities. All this have molded our students to tackle any type of situation during employment. The passed out students from this institution have found their rightful place in reputed industrial firms and colleges of higher learning and they are living up to their reputation.

#### Courses Offered:

- ✓ Civil Engineering (DCE)
- ✓ Mechanical Engineering (DME)
- ✓ Electrical and Electronics Engineering (DEEE)
- ✓ Electronics and Communication Engineering (DECE)
- ✓ Computer Engineering (DCSE)
- ✓ Information Technology (DIT)

#### Objectives of the workshop on HVAC&R:

##### Heating Ventilation Air Conditioning and Refrigeration

- ✓ To explore the potential of HVAC for Mechanical Engineers
- ✓ To bring out the idea about current trends and future scope of HVAC&R.
- ✓ To provide a platform for Students, Faculty, Researchers, Scientists, Policymakers, and Stakeholders to exchange ideas and knowledge on the subject.

#### Overview:

HVAC&R Plays vital role for day to day life applications now days in every aspect of life ranging from Storage of Agricultural products, Foods, Hospitals, Pharmaceutical field and space applications.

#### Topics to be covered:

- ✓ Introduction to HVAC & R System and its types.
- ✓ Inverter Air-conditioning technology.
- ✓ Cold Chain & Cold Storage.
- ✓ In door Air quality & Ventilation.
- ✓ IOT for smart HVAC&R.

#### Expected outcome:

The workshop will provide insights into the latest advancements and potential scope of HVAC for Mechanical Engineers. It will also promote collaborations and partnerships among Students, Faculty, Researchers, scientists, policymakers, and stakeholders to explore opportunities for mechanical engineers in HVAC & R .

#### Resource persons:

Lecture and Demo Sessions will be handled by Experts from academia and Industry

#### Who can attend?

The faculty members and students from Engineering colleges, Polytechnics, Universities, Research Institutions and Industries are eligible to participate in this one day workshop on “**Scope for Mechanical Engineers in HVAC&R Sector**”

#### National Advisory Committee:

**Chairman:** Er Chinmay Debnath, FIE, President, IEI

**Co Chairman:** Dr Enti Ranga Reddy, FIE, Chairman, MCDB, IEI

**Members: Mechanical Engineering Division Board, IEI**

Dr G Ranganath - Chairman, CATE

Er B Balasubramanian	Er Raghunandan Prasad Sharma
Er S K Banerji	Dr Arun Kumar Shrivastava
Er Safikul Islam	Er Venkata Satya G Pakki
Prof (Dr) K Brahma Raju	Dr Jignesh G Vaghasia
Dr Raof Ahmed Khan	Er Rajeev Vasudeva
Prof (Dr) B Radjaram	Prof (Dr) K Venkatasubbaiah
Er Sajjan Singh Yadav	Dr R Venkatesan
Er Salahudheen P A	Dr Sanjay Bhaskar Zope

#### Organizing Committee.

##### Chairman:

Dr. B. RADJARAM, M.Tech, Ph.D, FIE

##### Organising Secretary:

Dr. S. THIROUGNANAME Ph. D., FIE

##### Members:

Er. K. Jayaraman, MIE

Er. D. Karunakaran, FIE

##### Convenor:

Mr. K. FRANCIS, Principal, KPTC

##### Co-ordinator:

Dr. D. Candane, M.Tech., Ph.D. HOD/Mech, KPTC.

Mr. A. Thiagarajan, M. Tech., (Ph.D.) AP/Mech, MVIT.

#### CONTACT

**Dr. B. RADJARAM, M.Tech., Ph.D., FIE,**

Chairman,

The Institution of Engineers (India) Puducherry state Centre, & Professor & Head, Department of Mechanical Engineering.

Manakula Vinayagar Institute of Technology,  
Puducherry-605107

**Phone:** 9443748471

**Email:** [hodmechanical@mvit.edu.in](mailto:hodmechanical@mvit.edu.in) / [radjaram@rediffmail.com](mailto:radjaram@rediffmail.com)

**Dr. S. THIROUGNANAME, M.Tech., Ph.D., FIE,**

Honorary secretary,

The Institution of Engineers (India) Puducherry state Centre & Executive Engineer, Public Work Dept, Govt of Puducherry.

**Mobile:** 9443356700 **Email:** [thirou16@gmail.com](mailto:thirou16@gmail.com)

**Dr. D. CANDANE, M.Tech., Ph.D.**

Head of the Department / Mechanical Engineering, KPTC.

**Phone:** 9443165701 **Email :** [d\\_candane@yahoo.co.in](mailto:d_candane@yahoo.co.in)

**Mr. A. Thiagarajan, M.Tech.,**

Asst Prof / Mechanical Engineering,  
Manakula Vinayagar Institute of Technology,  
Puducherry-605107

**Phone:** 9047404878 **Email :** [thiagarajanmech@mvit.edu.in](mailto:thiagarajanmech@mvit.edu.in)

