

Bio-Data



Name : Dr. VIJAYAKRISHNA RAPAKA E

Educational Qualifications : B.Tech. (Mechanical Engineering)
M.Tech. (Energy Technology)
Ph.D. (IIT Madras) (Ocean Engg. - Wave Energy)

Fathers Name : R ESWARAYYA

Date of Birth : 12.06.1971

Address for communication : G-1, (Ground Floor)
G Ramakrishna R Ezhumalai Illam
Bharathiar Street
ECR Road, Kanagachettykulam
Pondicherry - 605014.

Contact No. : Residence : +91 0413 2918146
Mobile : +91 09367600780

E-mail : evkrapaka@pec.edu
evijayakrishna@sify.com
rapaka01@sify.com

Administrative Achievements during my previous assignments:

Principal, Shri Ganesh College of Engineering and Technology, Puducherry

- Founder Principal
- Setting up of Laboratories for the whole college (New College)
- Documentation work for obtaining AICTE Approval and Pondicherry University Affiliation

Principal, Gokula Krishna College of Engineering and Technology, Sullurpet, Andhra Pradesh

- Managed a student strength of 2400 (7 divisions UG, 2 divisions PG, 4 divisions II Shift Polytechnic)
- Introduced Second Shift Polytechnic (ECE,EEE,CSE, MECH)
- Introduced Second Shift Engineering (ECE,CSE)
- Introduced IGNOU-VIEP Engineering Program (Flexible Timings) ECE, EEE, CSE, MECH
- Achieved above 90% pass percentage in the Final Year Results (JNTU Anantapur)
- More than 220 placements (around 80% of eligible students placed)
- Proficient in AICTE Web Portal work and completed the work within stipulated time

Qualifications:

Name of the Examination	Institution	Year of Passing	Class/CGPA/ Percentage/ Remarks
Ph.D. (Hydrodynamics)	Indian Institute of Technology Madras, Chennai	July 2007	CGPA - 9.0 in course work Thesis commended in present form by all examiners
Advance Hardware Technology	Compu Coach, T.Nagar, Chennai	Sep. 2002	A Grade
M.Tech. (Energy Tech.)	Pondicherry University	July 1997	First Class CGPA - 8.17
CSIR-UGC JRF	CSIR, New Delhi	June 1995	Junior Research Fellowship in Engineering Sciences
GATE Exam	GATE - 95, MHRD, GOI	April 1995	82.42
B.Tech. (Mechanical)	Pondicherry University	May 1994	First Class
H.S.C.	Tamilnadu Board of Higher Secondary Examination	March 1989	83.41
S.S.L.C	Tamilnadu Board of Secondary Examination	March 1987	84.6

Details of Employment: (Total Experience - 16.14 years)

Office/ Institution	Post Held	From	To	Total period (in years)
Pick Pack Packages PIPDIC Industrial Estate Mettupalayam Puducherry	Engineer (R&D, Quality control)	02.06.1994	08.08.1995	1.16
Pondicherry Engineering College Pillaichavady Puducherry	Lecturer	09.08.1995	08.08.2000	5.00
	Senior Lecturer	09.08.2000	08.08.2005	5.00
	Assistant Professor	09.08.2005	19.09.2008	3.09
Aarupadai Veedu Institute of Technology Paiyanor Kancheepuram	Professor	20.09.2008	03.06.2009	0.71
Sri Ganesh College of Engineering & Technology, Pondicherry	Principal	04.06.2009	01.09.2009	0.25
Gokula Krishna College of Engineering	Principal	02.09.2009	31.05.2010	0.75
Shri Rama Educational Society Group of Institutions	Director	03.06.2010	04.08.2010	0.18
Rajiv Gandhi College of Engg and Tech	Principal	09.08.2010	Till Date	

Administration Positions held:

- NSS Officer in PEC - 3 years
- Resident Warden - PEC Gents Hostel - 5 years
- Engg. Graphics Lab Co-ordinator in PEC - 5 years
- CAD Lab. In charge - 2007 - 2008 (in PEC)
- Research and Development Coordinator in Aarupadai Veedu Institute of Technology, Paiyanor
- Remedial Coaching Class co-ordinator in Aarupadai Veedu Institute of Technology, Paiyanor.
- Governing Body Member in Gokula Krishna College of Pharmacy, Sullurpet

Details in the areas of Scholarship and Research Activities

Expert Lectures delivered - 18

- 1) Lecture delivered on **Energy Efficiency - Service** in the Short Term Training Programme (STTP) for teachers of Architecture and Engineering at Periyar Maniammai College of Technology for Women, Thanjavur on 19th July 2001.
- 2) Lecture delivered on **Ocean Wave Energy** at Periyar Maniammai College of Technology for Women, Thanjavur on 18.08.2004
- 3) Lecture delivered on **Ocean Energy** in the One day Seminar on Renewable Energy organized by Bharathiyar College of Engineering and Technology, Karaikal on 20.08.2005
- 4) Lecture delivered on **Renewable Energy** in the One day Seminar on Renewable Energy organized by Karaikal Polytechnic College, Karaikal on 24.08.2005
- 5) Lecture delivered on **Ocean Energy** in the One day Seminar on Renewable Energy organized by Royal College of Engineering, Mahabalipuram during August 2007
- 6) Lecture delivered on **Renewable Energy for Rural applications** to Block Development Officer in Karaikal during August 2007
- 7) Lecture delivered on **Renewable Energy** in the celebration of Rajiv Gandhi Renewable Energy Day conducted by Women Polytechnic College, Puducherry on 13.09.2007
- 8) Lecture delivered on **Solar Energy** in the One day Seminar on Renewable Energy organized by Karaikal Polytechnic College, Karaikal on 07.01.2008
- 9) Lecture delivered on **Solar Energy** in the One day Seminar on Renewable Energy organized by Bharthiar College of Engineering and Technology, Karaikal on 08.01.2008
- 10) Lecture delivered on **Product Design** in the AICTE Short term Training Programme on Product Design for Industries organized by Mailam Engineering College, Mailam on 22.05 .2008
- 11) Lecture delivered on **Basics of Wave Energy** organized by Science Club, Don Bosco School, Puducherry on 21.06.2008
- 12) Lecture delivered on **Renewable Energy** to Block Development Officers, Villianur Commune on 11.07.2008.
- 13) Lecture delivered on **Renewable Energy** to Block Development Officers, Reddiarpalayam Commune on 16.07.2008.
- 14) Lecture delivered on **Renewable Energy** to Block Development Officers, Karikalampakkam Commune on 17.07.2008.
- 15) Lecture delivered on **Renewable Energy** to High School Students in Puducherry Region on 11.08.2008.
- 16) Lecture delivered on **Renewable Energy** to Higher Secondary School Students in Puducherry Region on 12.08.2008.
- 17) Lecture delivered on **Harnessing Ocean Energy for future needs** organized by Renewable Energy Agency Pondicherry at Womens Polytechnic College on 03.10.2009.
- 18) Lecture delivered on **Harnessing Ocean Energy** organized by Renewable Energy Club, Pondicherry Engineering College, Puducherry on 13.10.2009.
- 19) Lecture delivered **“Earthquakes and Tsunamis”** in the Department of Architecture, Periyar Maniammai University for the National Training Programme on “Capacity Building of Architects and Civil engineers in Earthquake Risk Management” (NPCBAERM) on 23rd March 2010

Details of Summer/Winter Schools attended - 16 (14 weeks and 13 days)

Sl. No.	Details of Topic, Institution, Winter/Summer Course/others	Period	Duration
1.	Induction Training Programme Academic Staff College Aligarh Muslim Univeristy, Aligarh	11.05.1998 to 30.05.1998	3 weeks
2.	Advanced Energy Conversion Technologies and Energy Management Department of Mechanical Engg. Vellore Engineering College	7 th to 12 th Dec. 1998	1 week
3.	Automotive Emission Control Strategies Faculty of Engg. And Technology Annamalai University Annamalai Nagar 608 002.	20-31 May 2000	2 weeks
4.	Conducting Energy Audit Central Power Research Institute Energy Research Centre, Sreekariyam, Thiruvanthapuram	11 th -13 th Nov. 1999	3 days
5.	Fatigue and Fracture Related Life Prediction Techniques Indian Institute of Technology Madras, Chennai	Nov. 27, 2000 to Dec. 1, 2000	1 week
6.	Ocean Engineering Indian Institute of Technology Madras, Chennai	14-25 May 2001	2 weeks
7.	Application of Melt Rheology in Polymer Processing Amrita Vishwapeetham	3 rd - 7 th June 2004	1 week
8.	Tsunami Effects and Mitigation Measures Indian Institute of Technology Madras, Chennai Continuing Education Program	26.12.2005	1 day
9.	Renewable Energy Technology Transfer Sri Manakula Vinayagar Engineering College, Pondicherry,AICTE, New Delhi	January 27-29, 2006	3 days
10.	Workshop on Coastal Protection Measures Indian Institute of Technology Chennai	11.08.2006	1 day
11.	Advance Training Course on Wind Energy Amrita School of Engineering, Amrita Vishwa Vidyapeetham, Coimbatore, India. C-WET, Chennai, Suzlon, Thiruvananthapuram and Vestas, Chennai	May 14-19, 2007	1 week
12.	Design and Simulation in Control Systems Engineering Pondicherry Engineering College, Pondicherry AICTE, New Delhi	June 01-15, 2007	2 weeks
13.	Hydropower and the Environment G B Pant University of Agriculture & Technology, Pantnagar, Uttarkhand, AICTE, New Delhi	June 18-29, 2007	2 weeks
14.	Finite Element Method and Applications in Engineering using ANSYS National Institute of Technology, Tiruchirappalli -620015, TEQIP Community Service	November 26 & 27, 2007	2 days
15.	Hydropower and the Environment G B Pant University of Agriculture & Technology, Pantnagar, Uttarkhand, AICTE, New Delhi	June 02- 06, 2008	1 week
16.	Faculty Awareness Camps on Entrepreneurship (FACE) G B Pant University of Agriculture & Technology, Pantnagar, Uttarkhand, NSTEDB, DST, New Delhi	June 07 -09, 2008	3 days

Details of Summer/Winter Schools conducted - 1

Sl. No.	Details of Topic, Institution, Winter/Summer Course/others	Period	Duration
1.	Engineering materials and its applications Aarupadai Veedu Institute of Technology Vinayaka Missions University Two day Workshop - Co-ordinator	02.12.2008 - 03.12.2008	2 days

	Research projects guided for M.Tech./Ph.D.	M.Tech. Projects : 7 (Seven) Completed Ph.D. : NIL
	Projects guided for B.Tech	15 completed

	Research and Development activities/Consultancy
--	--

Solar CPC Project -2004 to till date : Design and Fabrication of Solar CPC cooking oven.

Fund received till date : US\$ 2410

Developed indigenously a low cost fish bowl Solar Hot Pot for baking purpose

Performance testing of an Eco-friendly refrigerator using R290/R600a refrigerant and Air -Conditioner with R134a refrigerant

Fabrication and Testing of a Solar Gel Pond

Performance testing of a Solar Cooker with double facet reflectors (planar type)

Performance testing of a Solar dryer under free and forced convection to estimate the drying rate of various agricultural commodities

	Membership in International and National bodies
--	--

MISTE Life Member - Membership No. LM 30965

Fellow Member in IIPE - Membership No.SF3573

	Details of Fellowships awarded
--	---------------------------------------

COPEDEC VI Fellowship to visit Sri Lanka to present a technical paper on Wave Energy Device (2003)

World Education Grant \$1000 for the CPC -Earthen Vaults Solar Kitchen Project Engineering Study

COPEDEC VII Fellowship to visit Dubai to present a technical paper on hydrodynamics of Wave Energy Device in random waves (2008)

	Conduct of Certificate course/ Conference/ Workshops/Seminars in PEC
--	---

Mechnium '03 - Mechanical Engineering Students Seminar

Staff Incharge : Printing and Publication Committee

Department TEQIP Co-ordinator

Softwares:

MS Word, MS Excel, MS Powerpoint

ANSYS, Origin Pro 8.0, Grapher, AutoCAD, TRIBON (Dynamics of floating structures)

Papers published

International Conferences

1. **Vijayakrishna Rapaka, E., and Venkatraman, A.,** “A Low Cost Screw Propeller Windmill for Pumping Applications”, RUWATSS, International Conference on Innovative Technologies for Rural Water Supply and Environmental Sanitation, Roorkee, Oct.12 - 13,2000
2. **Mohammed Ali, Vijayakrishna Rapaka, E., Sivakumar, P., Sathish Kumar and Mourougavelou, V.,** “A special type of milling fixture for discontinuous threads”, ICME 2001, 4th International Conference on Mechanical Engineering, Dhaka, Dec.26 -28, 2001.
3. **Vijayakrishna Rapaka, E., Hemanth Kannan and Sukumaran,** “Performance of a refrigerator using eco-friendly HC blend refrigerant R290/R600a (CARE 30)”, ICME 2001, 4th International Conference on Mechanical Engineering, Dhaka, Dec.26 -28, 2001.
4. **Vijayakrishna Rapaka, E., and Venkatraman, A.,** “Studies on a Screw Propeller Windmill” ICME 2001, 4th International Conference on Mechanical Engineering, Dhaka, Dec.26-28, 2001.
5. **Vijayakrishna Rapaka, E., Natarajan, R., and Neelamani, S.,** “Behaviour of moored floating energy device”, **MARIND 2002**, Fourth International Conference on Marind Industry, Bulgaria, Oct.06-11, 2002
6. **Vijayakrishna Rapaka, E., Natarajan, R., and Neelamani,S.,** “Hydrodynamic performance of a floating wave energy device”, **SHOT 2002**, International Conference on Ship and Ocean Technology, IIT Kharagpur, Dec.18 -10, 2002.
7. **Vijayakrishna Rapaka, E., Natarajan, R., and Neelamani, S.,** “Experimental study on the dynamic response of a moored floating wave energy device”, **OMAE 2003**, The 22nd International Conference on Offshore Mechanics and Arctic Engineering, June 8-13, 2003, Cancun, Mexico.
8. **Vijayakrishna Rapaka, E., Neelamani, S., and Natarajan, R.,** “On the efficiency and transmission characteristics of a 1:20 model fixed wave energy device”, **OMAE 2003**, The 22nd International Conference on Offshore Mechanics and Arctic Engineering, June 8-13, 2003, Cancun, Mexico.
9. **Vijayakrishna Rapaka, E., Natarajan, R., and Neelamani, S.,** “On the efficiency, transmission characteristics and dynamic response of a moored floating OWC wave energy device”, **COPEDEC VI**, Sixth International Conference on Coastal and Port Engineering in Developing Countries, September 15th to 19th, 2003, Colombo, Sri Lanka.
(Received the COPEDEC VI Fellowship Award and visited Sri Lanka to present the above -mentioned paper.)
10. **Sozhan, N., Vijayakrishna Rapaka, E., and Gunasegarane, S.,** “Solar Pond for Energy Conservation in a Dairy Industry located at Pondicherry region” **FTEC 2003** 4th International Conference on Fluid and Thermal Energy Conversion, Bali Islands, Thailand, Dec.7-11, 2003.
11. **Vijayakrishna Rapaka, E., Natarajan, R., and Neelamani, S.,** “On the efficiency and transmission characteristics of a 1:20 model fixed wave energy device under varied

damping conditions”, COT 2003, International Conference on Coastal and Ocean Technology, December 10-12, 2003, Chennai, India.

12. Sozhan, N., and Vijayakrishna Rapaka, E., “Thermal studies on a Salt Gradient Solar Pond for a possible application in the Dairy Industry at Pondicherry region, India -Case study”, First International Conference on Renewable Energy, New Delhi, India, Oct. 6 - 8, 2004.
13. Sozhan, N., Kaliyappan, T., Rajagopan, S. and Vijayakrishna Rapaka, E., “Theoretical and Experimental Investigations on a 0.25 m² Solar Gel Pond”, International Conference on Ocean Engineering, Goa, India, Dec. 7-9, 2004.
14. Vijayakrishna Rapaka, E., and Natarajan, R., “On the hydrodynamics and motion response of a 1:20 model moored OWC wave energy device in regular waves” INCHOE 2007, Fourth Indian National Conference on Harbour and Ocean Engineering, 12th -14th December 2007, Surathkal, Mangalore, India.
15. Vijayakrishna Rapaka, E., and Natarajan, R., “On the hydrodynamics and motion response of a 1:20 model moored OWC wave energy device in random waves”, COPEDEC VII, Seventh International Conference on Coastal and Port Engineering in Developing Countries, 24th - 29th December, Dubai.
(Received the COPEDEC VII Fellowship Award and visited Dubai to present the above-mentioned paper.)
16. Rajagopan, S., Kaliyappan, T., Sozhan, N., Vijaya krishna Rapaka, E., and Senthivelan, T., “Experimental Studies on Model Solar Gel Ponds in Puducherry region” 15th ISME International Conference on New Horizons of Mechanical Engineering, Rajiv Gandhi Technological University, March 18 -20, 2008.
17. Vjayakrishna Rapaka E, Noorual Ameen N, Vignesh P, Rajarajan B, Prashant V S and Sakthivel, “Experimental Studies on a Solar PV Panel fitted with truncated Compound Parabolic Concentrators and Maximum Power Point Tracking System” Alternative Energy Applications Options or Necessity, Engineering Congress on Alternative Energy Applications, KUWAIT, November 2nd -6th, 2009,
18. Noorul Ameen N, Vijayakrishna Rapaka E, Ashok.K, Ajakar.H, Balakumaranathan.J and Roshan Ashraf. A , “Fabrication and development of a novel fish bowl type Solar Hotpot ” Alternative Energy Applications Options or Necessity, Engineering Congress on Alternative Energy Applications, KUWAIT, November 2nd - 6th, 2009,

National Conferences

19. Vijayakrishna Rapaka, E., Neelamani, S., and Natarajan, R., “On the transmission characteristics and efficiency of a 1:20 model fixed and floating wave energy device/breakwater”, NASHAR-2003, National Seminar on Harbour Structures, Chennai, INDIA, 20-22 February 2003.
20. Sozhan, N., and Vijayakrishna Rapaka, E., “Thermal studies and Experimental Investigations on a 0.25 m² Solar Gel Pond”, All India Seminar/Conference on Advances in Mechanical Engineering, Sri Venkateswara University, Tirupati, India, Aug. 20 -21, 2004.
21. Vijayakrishna Rapaka, E., Soundararajan, V., Ranjit Kumar Srivastava, Veengadakrishnan, and Vijayanarayanan, “Thermal Performance Test Results for

Double Facet Solar Box Cooker”, National Conference in Recent Advancement in Mechanical Engineering (RAME 2007), Department of Mechanical Engineering, K.S.Rangasamy College of Technology, Tiruchengode, Namakkal, Tamilnadu, India, 21st & 22nd February 2007.

22. Rajagopan, S., Vijayakrishna Rapaka, E., Sozhan, N., Kaliyappan, T., and Senthivelan, T., “Fabrication and Experimental Investigations On a 0.25 m² Solar Gel Pond”, National Conference & Exhibition on Demand Side Management Options for Energy Sustainability (DSMES '07), Department of EEE, Pondicherry Engineering College, Puducherry, India, 25th October 2007.
23. Vijayakrishna Rapaka, E. and Natarajan, R., “Hydrodynamics Of A 1:20 Model Floating Wave Energy Device In Regular Waves”, National Conference on Energy Efficiency: The Environmental Solution (EEES07), Centre for Energy & Environmental Science and Technology (CEESAT), National Institute of Technology, Tiruchirapalli, India, 27-28 December 2007.
24. Rajagopan, S., Sozhan, N., Vijayakrishna Rapaka, E., Kaliyappan, T., and Senthivelan, T., “Operational Experiences on Model Solar Gel Ponds in Puducherry region” National Conference on Energy Efficiency: The Environmental Solution (EEES07), Centre for Energy & Environmental Science and Technology (CEESAT), National Institute of Technology, Tiruchirapalli, India, 27 -28 December 2007.
25. Vijayakrishna Rapaka, E., “A Low Cost Screw Propeller Windmill for Pumping Applications in Rural Areas”, ATH 2008, National Workshop on Appropriate Technologies for Hills, Under TEQIP, G B Pant University of Agriculture and Technology, Pantnagar, Uttarkhand, Oct.16-18, 2008

International Journal(s)

1. Vijayakrishna Rapaka, E., Natarajan, R., and Neelamani, S., “Experimental investigation on the dynamic response of a moored wave energy device under regular sea waves.” Ocean Engineering, 31 (2004), 725 -743.

Preliminary Draft Report

Dt. March 28, 2003 on

Study on the optical and thermal properties of a compound parabolic concentrator with and without end-wall reflectors for Pondicherry region

Report No. 1

Dt. March 28, 2004 on

Study on the optical and thermal properties of a compound parabolic concentrator with and without end-wall reflectors for Pondicherry region