

Prof. Virendra Kumar Vijay

IREDA Chair Professor

National Coordinator- Unnat Bharat Abhiyan (UBA) Ministry of Education, GoI

Member- Board of Governors, IIT Bhilai, Chhattisgarh

Coordinator- Biogas Development and Training Centre (BDTC), MNRE, GoI

Former Member of Technical Committee, National Agricultural Higher Education Project (2018-2023),

Sponsored by the World Bank



CENTRE FOR RURAL DEVELOPMENT AND TECHNOLOGY

INDIAN INSTITUTE OF TECHNOLOGY, DELHI

December 2024

Curriculum Vitae

Name in full: **VIRENDRA KUMAR VIJAY**

Date & Place of Birth: **14-01-1965**

Education: **Agricultural Engineering and Technology**

Area of specialization: **Renewable Energy Source & Biogas Technology**

Present Position/Designation: **IREDA Chair Professor,
Centre for Rural Development and Technology,
Indian Institute of Technology Delhi**



SUMMARY

Prof. Virendra Kumar Vijay is best known for the design and development of low-cost small-scale biogas purification and bottling technology for vehicular application. It is also useful in shifting dimension of second green revolution (organic agriculture maintaining productivity) which is the need of the hour. The technology has been transferred to 9 industries and many gaushalas and field areas. IIT Delhi is operating India's first biogas car for last 9 years which has crossed more than 100000 km run on biogas. Based on the data by Indian Institute of technology Delhi on performance of engine, emission derating and degradation on use of upgraded biogas in the car, Bureau of Indian standard has formulated biomethane (bio-CNG) standard in India in 2013 (IS:16087).

He has more than 32 years of experience in higher education with multi-disciplinary approach and working with diverse students. Through his approach, students can learn skills, attitude, and values towards sustainable and holistic development. Based on his long experience in education system as faculty in Agricultural University for 15 years and another 22+ years at one of the top known institution world over- Indian Institute of Technology, Delhi. It is observed that the present higher education system in the country is not equipping students in required skills and knowledge to serve industry and society at large. Most of the undergraduate student get their degrees for having only the bookish knowledge without any kind of practical; need based knowledge and real experience.

Biogas Development and Training Centre at IIT Delhi and which is coordinated by him. He is also founder General Secretary of the technical society – “Biogas Forum -India”.

Prof. Vijay and his team developed the concept and vision of Unnat Bharat Abhiyan, which was adopted by MHRD, GOI in 2014. The program aims to create a virtuous cycle between society and an inclusive academic system by providing knowledge of educational institutes, experience of voluntary organizations and resources of government. He is also upholding the position of National Convener for an inter-Ministerial funding programme “Scientific Utilization Through Research Augmentation- Prime Products/ Panchgavya from Indigenous Cows” (SUTRA-PIC up India).

Detailed Curriculum Vitae

1. Name: Virendra Kumar Vijay

2. Present position: IREDA Chair Professor and Head
Centre for Rural Development and Technology
Indian Institute of Technology, Hauz Khas, New Delhi – 110016

3. Postal Address: 24 West Avenue
IIT Campus, Hauz Khas
New Delhi -110016

4. E-Mail Address: vkvijay@rdat.iitd.ac.in, vkvijay14@gmail.com

5. Phone Number (Mobile & Landline): +91-9871366611, 011-26596351 (O)

6. Date of Birth/Age: 14-01-1965

7. Educational Qualification:

Exam /Degree	Board/ University	Subject/ Discipline	Year of Passing	% of Marks/GPA
Higher Secondary	Board of Secondary Education, Rajasthan	Science Mathematics	1981	82.00 %
B.E.	Sukhadia University	Agric. Engg.	1987	3.39/4.00
M.E.	Rajasthan Agricultural University	Renewable Energy	1989	7.64/10.00 (Honors) Gold Medal
Ph.D.	IIT Delhi	Rural Development & Technology	1998	9.50/10.0

Ph.D. Thesis: Rural Industries Development using Biomass Energy

M.E. Thesis: Studies on Utilization of Biogas for Improved Performance of Dual Fuel Engine

Google Scholar: <https://scholar.google.co.in/citations?user=wHA0bCoAAAAJ&hl=en>

Webpage: <https://web.iitd.ac.in/~vkvijay/>

8. Present Scale of Pay: PB 437000 – 67000, Grade Pay 10500

9. Experience (Academic & Administrative may be indicated separately):

WORKING EXPERIENCE:

S. No.	Post held	Pay Scale	Organization	Nature of duties	Experience (In Years and Months)
1.	Professor	1,82,200 - 2,24,100 Level 15 HAG Scale	CRDT, IIT Delhi	Teaching, Research, Administ ration, Out Reach	5 Years
2.	Professor	1,82,200 -2,24,100	CRDT, Indian Institute of Technology Delhi	Teaching & research, Tech Transfer	13 years and 2 Month
3.	Head	-	CRDT, Indian Institute of Technology Delhi	Teaching & research, Tech Transfer	4 years and 2 Months
4.	Associate Professor	16400-20000	CRDT, Indian Institute of Technology Delhi	Teaching & Research, Tech Transfer	4 years and 6 Months
5.	Assistant Professor	12000-18300	CRDT, Indian Institute of Technology Delhi	Teaching & Research	4 years and 4 Months
6.	Associate Professor	12000-18300	MPUAT, Udaipur	Teaching & Research	1 year
7.	Assistant Professor (Senior Scale)	10000-325-15200	CTAE, MPUAT, Udaipur	Teaching & Research	6 years
8.	Assistant Professor	2200-75-2800-100- 4000	Rajasthan Agri. University, Bikaner	Teaching & Research	6 years

ADMINISTRATIVE EXPERIENCE:

- Head, Centre for Rural Development and Technology from 1 July 2015 to 31 August 2019
- National Coordinator, Unnat Bharat Abhiyan IIT Delhi since 1 July 2015
- Convener, National Program on “Scientific Utilization Through Research Augmentation-Prime Products/ Panchgavya from Indigenous Cows” (SUTRA-PIC up India).
- General Secretary, Biogas Forum-India (BiGFIN), a movement of biogas and bio-fertilizer in India.
- Principal Investigator for more than 30 Sponsored Research Projects and consultancy projects
- Secretary, Senior Staff Club, IIT Delhi 2005-2008,
- Treasurer, secretary Faculty Forum IIT Delhi 2007-2013
- Co-Convener, Energy and Infrastructure Group, NIRI project, IIT Delhi
- Organized many Conferences/Workshops/Short Term Training Courses
- As Chief Warden for 5 hostels in the college for two years & warden
- General Secretary, CTAE Faculty Club 1992-94
- Member, Governing Council, Foundation for Innovation and Technology Transfer (FITT) IIT Delhi since December 2018 for 2 years

R&D EXPERIENCE:

Sponsored Research Conducted:

- Biogas Enrichment and Bottling Technology
- Biomethanation of Municipal Solid Waste
- Biomethanation of rice straw for power generation
- Biogas Generation from Solid Wastes (Alternative Feed Materials)
- Study on Dual Fuel Engine Performance Analysis Operated on Biogas
- Energy Plantation and Waste Land Development
- Biomass Based Power Generation
- Rural Entrepreneurship Development Programme
- Model of Rural Industrial Estate using Renewable Energy Sources
- Rural Energy Planning

10. Number of Patents: (Filed/awarded): 3

1. **Patent No. 284588** for “A Device and a Process for Conversion of Biogas to a Fuel Gas with enhanced Thermal Efficiency”. V. K. Vijay, P.M.V. Subbarao, R.R. Gaur and S.S. Kapdi.
Dated: 20/01/2006
2. **Patent No. 324527** for “A method of bio harvesting and pre-treating algal biomass and uses thereof”. A. Malik, S. K. Prajapati, V. K. Vijay, A. Bhattacharya. Dated: 02/06/2015
3. **Patent No. 352742** for “A System for production of Biomethane and Bio Carbon Dioxide from Biogas and a Method Thereof”. V. K. Vijay, Rimika Kapoor, P.M.V. Subbarao. (Indian) – Patent Dated: 21/05/2018.

11. Technology Transfer:

Biogas Enrichment and Bottling Technology (Developed by V. K. Vijay, SS Kapdi, PMV Subbarao) transferred to following Industries/ companies by FITT, IIT Delhi under non-exclusive license agreement.

- M/S Indian Compressors Ltd, New Delhi in March 2006
- M/S Tech Zone, Bhavani, Tamil Nadu in June 2006
- M/S Excel Electrical Pvt Ltd, Valsad, Gujrat March 2007
- M/S Swasth Sewa Maitry Charitable Trust, Delhi, Sept 2008
- M/S Ashoka Bio green Pvt. Ltd., Nasik, Maharashtra, Feb 2009
- M/s Raghunath Bioenergy Pvt Ltd, New Delhi 7th Sept 2009
- M/S Green Bric Eco Solutions, New Delhi, 2013
- Mahindra and Mahindra, 2014
- M/S Praj Industries Ltd, Pune, 2015
- S.S. Gas Ltd., New Delhi, 2018
- M/S KIS Group, Bangalore, 2022

12. Number and Names of reputed Awards/Recognitions:

S. No.	Details of Award/ Prizes	Year	Amount
1	Merit Certificate and Cash Prize by the Board of Secondary education, Rajasthan for Higher Secondary Examination.	1981	250/-
2	Gold Medal Awarded on M.E. Examination by the Rajasthan Agricultural University.	1989	Gold Medal
3	Prof. Yashwant Rao Kalkar Award for Excellent Work in the Field of “Appropriate Technology for Rural Development” Constituted by Akhil Bhartiya Vidyarthi Parishad on all India Level.	1992	2000/-
4	A citation and Cash Prize for Excellent Achievement in the Society by Akhil Bhartiya Vijayvergiya Maha Sabha, Rastriya Puraskar Samiti.	1992-93	750/-
5	Second Prize for Original Book Writing in Hindi on Subjects Related to Environment Titled “Paryavaran Shikhsa” by the Ministry of Environment and Forest, Govt. of India.	1993	15000/-
6	First Prize for Original Book Writing in Hindi in the Scheme of “Prakrit Urja Purskar Yojana” by the Ministry of Non-Conventional Energy Sources, Govt. of India, on the Book Titled “Biogas Vigyan Avam Upyog”.	1992	15000/-
7	Indian Society of Agricultural Engineers BOOK AWARD on Book Entitled “ Energy, Ecology & Environment”	1998	1000/-
8.	Hari Om Ashram Prerit Young Scientist Award 1998 for Outstanding Research Work during 1994-97 in the Area of Renewable Energy by Sardar Patel Renewable Energy Research Institute, Vallabh Vidhya Nagar	1998	11000/ - and a Citation
9.	SGSTIS National Award for Young Engineering Teacher by Indian Society for Technical Education, New Delhi	1999	Rs. 6000/- Cash, Citation and Medal
10.	Career Award to Young Teachers by All India Council for Technical Education (AICTE), GOI New Delhi	1999-2002	Three-year salary and contingenc y Rs. 3,00,000

11.	ISAE Team Research Award, New Delhi	1999	Certificate and Medal
12.	Young Scientist Award by National Academy of Agricultural Sciences, New Delhi for Contribution in Agricultural Engineering	1999-2000	Rs. 25000/- , a Medal and a Certificate
13.	District Level Award on Republic Day Parade by the District Collector of Udaipur	26 January 2001	A Certificate and Memento
14	Special Award by the Vice-Chancellor, MPUA&T, Udaipur on Excellent Achievement by a Faculty in the University	26 January, 2001	Appreciation Certificate
15	AICTE Takniki Pathya Pustak Yojana 2003-04 Third Prize Jointly on Book : Urja Paristhiti Ki Vigyan Avam Paryavaran	2003-04	Rs. 21000/- Jointly
17	Prakriti - National Prize and Award 2005 Applications of S&T for Self Reliance in Rural Economy by Prakriti Bharti	9 December 2005	Rs. 25000/- Certificate
18	INAE- Innovative Student Project Award – 2006 (Ph.D. Level) for Ph.D. Supervision of Mr. S.S. Kapdi	Dec 8, 2006	Rs 10,000 and a Medal to Mr. S.S. Kapdi
19	Winners Award for the “Category XVI: Pradeep Pimpley – ENERTIA Award for ‘Idea Innovation by Student in the Academic Institutions’ (IITs, NITs & Top Engineering Institutions of India)” received by “Rimika Kapoor, and Pradip Narale, Ph.D Research Scholar of the Centre for Rural Development & Technology IIT-Delhi” under the guidance of Prof V K Vijay , at “7 th ENERTIA Awards 2013”	22 Nov 2013	Certificate and Medal
20	“Shiksha Gaurav” Award at Global Nature Film Festival, by “Vishwa Mitra Parivar”	Sept. 2018	Certificate and Medal
21	IAAM (IAAM, over 50k members from over 100 countries, a principle organization in the field of Advanced Materials) Scientist Award for the year 2019, Viking Line Cruise, Stockholm, Sweden	12th August 2019	European Advanced Materials Congress 2019
22	Pt. Deen Dayal Upadhyaya Recognition for Reengineering India by re:think India	11th February 2020	re:think India

23	India Green Energy Awards, 2020 by Indian Federation of Green Energy	20 th October, 2021	Award
----	--	--------------------------------	-------

13. Expert / Evaluation / Courses Committees Experience:

S.No.	Details	Position	Year
1.	National Committee on Rural Development , Confederation of Indian Industries, New Delhi	Member	1995-96
2	National Committee on Community Development, CII, New Delhi	Member	1996-97
3	Expert committee for Development of Course Material for Vocational Education, Central Institute for Vocational Education, NCERT, Bhopal	Member	1996
4	Member, National Standing Committee, CAPART, MRD Govt. of India, New Delhi	Member	1998- 2001
5	North Zone Regional Committee, CAPART, Jaipur	Member	1999-2002
6.	Task force on Cow protection and Sustainable Development in M.P. State	Member	January 2004
7	Board of Studies and Committee of Courses, Dept. of Renewable Energy Sources, CTAE, MPUAT, Udaipur CTAE/BOS/2006/2053-60	Member	2006-2007
8.	Member, Core Group Expert Committee, State Science and Technology Program (SSTP), Dept. of Science and Technology(DST), Govt. of India DST/SSTP/Core group/298/2014-15 dated 13.10.2014	Member	2014-2017
9	Peer Review Team/Monitoring Committee for the West Zone for monitoring and evaluation of the grants provided by the ICAR during XII Plan to various agricultural universities. ICAR File No. Edn. /7(8)/2015 EP & HS dated 21.03.2016	Member	2016-17
10	“Towards a Sustainable Earth” Expert Panel Meeting, call for approving joint projects from India, China, UK, Japan and Sweden in London.	Member	20.11.2018
11	PRISM Advisory & Screening Committee (PASC)	Member	18.08.2020
12	Screening Committee for "CSIR Award for S&T Innovation for Rural Development" (CAIRD Award) 2017, 2018 and 2019	Member	Sept. 2020
13	Academic Committee of Indian Naval Academy (INA), Kerala	Member	June 23 rd , 2020

14	Board of Education & Research Planning for session 2019-21	Member	24.08.2020
15	Science and Engineering Research Board (SERB)	Member	23.09.2021
16	Committee member for proposal evaluation at GJUST, Hisar	Member	27.05.2022
17	Research Advisory Committee, University of Petroleum & Energy Studies (UPES)	Member	20.10.2020

- Convener, CRC, IIT Delhi -1 Sept 2006
- Senior Staff Club, IIT Delhi Exe. Member (2004-2005), Treasurer (2005-06), Secretary (2006-2008)
- Faculty Forum, IIT Delhi: Treasurer (2006-2008)
- Faculty Club Secretary, CTAE Udaipur (1998-2002)
- Secretary, RuDRA, Udaipur (1999-2002)
- President, ABVP Udaipur Mahanagar, 1991-1994
- President, School Student Union, Govt. Higher Secondary School, Malpura 1980-81
- Faculty In charge, Stores, CRDT, IIT Delhi 2012-14
- Committee member in Board of Education and Research Planning, IIT Delhi, 2019-2021

14. Number of Ph.D. guided (completed/in progress): Guided 21 Ph.D.'s, 20 in progress

15. Number of Publications (National /International): More than 170 for both

16. Number of Books published/under publication: 8

17. Number of Projects (completed/in progress): 55 sponsored/22 consultancies

18. Number of Memberships in Societies & their names:

Fellow- **Institution of Engineers** (India) –F-114333-2 elected on 13.6.2009

Fellow of **Indian Society of Agricultural Engineers** (F- 153/ LM – 6757) since 2010,

Life Member of **ISTE (Indian Society for Technical Education)** – LM 30584,

ISCA (Indian Science Congress Association) – L 9667, Card 9504,

SESI (Solar Energy Society of India) – LM 1369 / 2009,

Fellow of **International Association of Advanced Materials** elected in May 2020

19. Any other information

National Coordinator of **Unnat Bharat Abhiyan**, conceptualized by me and Prof Rajendra Prasad in September 2014 and adopted by then MHRD as a national program.

Date: August 2024

(SIGNATURE OF APPLICANT)
Virendra Kumar Vijay

Details of Thesis Supervised

Ph.D.

1. Studies on Design and Operational Parameters of Donkey Powered Rotary Unit for Operating Agro Processing Machines – R.C. Helliikeri, awarded on 19.4.2002 Co-Supervisors – Dr. N.S. Rathore & Dr. N.B. Narwani
2. Development of Eco-Friendly Medical Waste Management System – A Study of Udaipur. –Meeta Mathur, Awarded in April 2002 Co-supervisor Prof. B.P. Bhatnagar
3. Analysis and Management of Municipal Solid Waste of Udaipur – B.S. Singhvi, 2005 Rajasthan Vidyapeeth, Udaipur
4. Purification and Compression of Biogas for Rural Application - S.S. Kapdi (2002 RRD002) IIT Delhi, Awarded on 08.12.2005
5. Development of Solar-Biomass Drier and Studies on Heat and Mass Transfer for Drying of Spices – Jaishree Solanki Awarded in June 2006 IIT Delhi (2001RRD005)
6. Effect of Indian Spices on Food Borne Pathogens and Their Use in Development of Food Products – Sofia P.K. (2003RDZ0005) 2.1.2004 Awarded on 23.10.2008
7. Studies on Production of Enriched Biogas Using Jatropha and Pongamia De-oiled Seed Cakes and Its Utilization in I.C. Engines – Ram Chandra (2004RDZ8090) 29.7.2004 awarded on 21.12.2009 Co-Supervisor – Prof. P.M.V. Subbarao
8. Assessment of Drinking Water Quality and Availability Through Rainwater Harvesting in an Arid Region- A Case Study of Village in Jaisalmer – A.K. Bhaduria, since 23 July 2002 IIT Delhi (2002 RRD004) Awarded in 30.07.2010 Co-Supervisors – Prof. Rajendra Prasad and Prof. A.K. Gosain
9. Pradeep Kumar Goyal (2005RDZ8188) Vulnerability Assessment of Rural Houses Due to Cyclonic Wind 27.7.2005 awarded in August 2010 [Co-Supervisor – Prof. T.K. Dutta
10. Devendra Nath Gupta (2005RDZ8265) Area Planning using ICT for Rural Industrialization and Employment. PT 2.1.2006 Co-Supervisors – Prof. Rajendra Prasad and Dr. Sushil awarded on 27.12.12
11. Ram Chandra Pradhan (2005RDZ8262), Design & Development of Low-Cost Post Harvest Equipment's for Jatropha and Karanja 2.1.2006 Awarded on 21.4.2011 Co-Supervisors – Dr. S.N. Naik and Dr. Naresh Bhatnagar
12. Neetu Rani (2003RDZ0006) Treatment of Pulp and Paper Mill Wastewater by Constructed Wetland Technology, 2.02.2004 Awarded 7.6.2011 Co-Supervisors – Prof. R.C. Maheshwari and Dr. Vivek Aggarwal
13. Kishore Gedam (2004RDZ8086) Development of Milk Processing Sterilizer for application in Rural Areas –awarded on 29.7.2011
14. Meena Krishna (2009RDZ8148) Studies on pretreatments and reactors for methane fermentation from lingo cellulosic biomass, joined on 24.7.2009 awarded in May 2013

15. Sanjeev Kumar (2010RDZ8745) Biomethane from algal biomass: Feasibility enhancement through pretreatment, co-digestion and coupling with wastewater treatment, awarded in 2014
16. Rimika Kapoor (2010RDZ8747) Design and development of methane loss minimization and CO₂ recovery systems for Water scrubbing based biogas upgrading unit, awarded in 2017
17. Abhinav Trivedi (2012RDZ8204) Hydrothermal disintegration of paddy straw for Biomethanation
18. Risha Mal (2012RDZ8212), Thermoelectric generation of cook stoves
19. Pushpendra Kumar (2013RDZ8571), Optimization of parameters for algal biogas production
20. Bhaskar Jha (2014RDZ8131), Studies on Anaerobic Digestion of De-Oiled Rice Bran with and without Rice Straw.
21. Supreet Kaur (2014RDZ8136), Isolation and Characterization of bacterial strains and their enzymes with lignolytic potential from Western Ghats of India.
22. Amit Ranjan Verma (2012RDZ8208), Design and development of biomass cook stove.
23. Shivali (2015RDZ8261), Hydrogen Sulfide removal technologies from raw biogas.
24. Goldy Shah (2015RDZ8452), Design and developed a low cost PSA based biogas upgradation

Ph.D. Thesis in progress

Himanshu Maharana	2016RDZ8033	Studies on Utilization of Bio-CO ₂ in rural areas.
Swapna sagarika saho	2016RDZ8364	Preparation of Activated carbons and their uses in waste water applications
Adya Isha	2017RDZ8236	Development of high efficiency valorization process for kitchen, vegetable and food waste
Biju I.K.	2017RDZ8412	Experiments on Biogas-solid oxide fuel cell systems
Parveen Kumar	2017RDZ8581	Development of an efficient gassifier biogas system for power generation from selected agriculture residues.
Komalkant Adlak	2018RDZ8244	Preparations and Characterizations of Adsorbed from Lignin Rich Biomass and Its Applications for Biomethane Adsorption
Sameer Ahmed khan	2018RDZ8645	Development of Adsorbed Biogas technology
Subodh Kumar	2018RDZ8646	Pretreatment of Agricultural Biomass Residue for Efficient Biogas Production

Dushyant Kumar	2018RDZ8640	Bio-CNG for Vehicular applications
Imlisongla Aier	2019RDZ8447	Energy Intervention for rural Application
Sachin Bhujbal	2019RDZ8399	Anaerobic Microbial Consortium Derived from Termite Gut for Enhanced Biomethanation of Rice Straw
Anil kumar Shakhya	2018RDZ8638	Biochar Production from Agro-residues and its Application
Tinku Casper Desilva	2019RDZ8608	Biogas upgradation process
Amit Kumar Sharma	2020RDZ8002	Biogas Cleaning and its Application in Fuel Cell
Sharang Dev Sharma	2020RDZ8712	Site Suitability Analysis for Success of Compressed Biogas Plants

Editor International Journal:

- International Journal of Energy and Environment (IJEE)
- International Journal of Anaerobic digestion and Renewable energy
- Applied energy
- Bioresource Technology
- Waste and biomass valorization
- African Journal of Biotechnology
- Renewable energy, Publisher Hindawi
- Chemical Engineering and Technology, Wiley
- Bioresource Technology Reports

Details of Membership of Societies

1. Fellow of Institution of Engineers (India)
2. Fellow of ISAE (Indian Society of Agricultural Engineering)
3. Life Member of Indian Society for Technical Education
4. Life Member of Indian Science Congress Association
5. Life Member of Solar Energy Society of India
6. National Academy of Sciences, India

List of Publications

A. Publications

1. Aier I *, Kakati U, Vijay VK, Kaushal P (2024). Estimation of recycled bamboo availability and investigation of its potential utilization after value-addition through dual fuel cookstoves. *Sustainable Energy Technologies and Assessments* 68, 103852
2. Kumar P *, Fiori L, Subbarao PMV, Vijay VK (2024). Development of an efficient method to blend forest biomass with agricultural residue to produce fuel pellets with improved mechanical properties. *Biofuels*, 1-12
3. Bhujbal S.K. *, Ghosh P, Vijay V.K., Kumar M (2023). Ruminant content biochar supplementation for enhanced Biomethanation of rice straw: Focusing on biochar characterization and dose optimization. *Science of The Total Environment* 905, 167250
4. Sakhiya A.K. *, Kaushal P, Vijay V.K. (2023). Process optimization of rice straw-derived activated biochar and biosorption of heavy metals from drinking water in rural areas. *Applied Surface Science Advances* 18, 100481
5. Agarwal N.K. *, Pattnaik F, Kumar M, Adlak K, Kumari P, Vijay V.K., Kumar V (2023) Hydrothermal pretreatment of sugarcane bagasse pith for biogas production and digestate valorization to biochar. *Industrial Crops and Products* 202, 116973
6. D'Silva T.C. *, Khan S.A., Kumar S, Kumar D, Isha A, Deb S, Yadav S, Illathukandy B, Chandra R, Vijay V.K., Subbarao P.M.V., Bagi Z, Kovács K.L., Yu L, Bhushan P Gandhi, Semple K.T. (2023) Biohydrogen production through dark fermentation from waste biomass: Current status and future perspectives on biorefinery development. *Fuel* 350, 128842
7. Sakhiya A.K. *, Kaushal P, Vijay V.K. * (2023). Potential of rice straw derived activated biochar to remove arsenic and manganese from groundwater: A cleaner approach in the Indo-Gangetic Plain. *Applied Surface Science Advances* 17, 100443
8. Agarwal N.K. *, Kumar M, Pattnaik F, Kumari P, Vijay V.K., Kumar V (2023). Exploring the Valorization Potential of Sugarcane Bagasse Pith: A Review. *Bioenergy Research* 16 (3), 1280-1295
9. Aier I*, Kakati U, Vijay V.K., Kaushal P (2023). Performance evaluation of popular improved biomass cookstoves from a rural community along the Indo-Gangetic Plains. *Biomass Conversion and Biorefinery*, 1-17.
10. Subbarao P.M.V. *, D'Silva T.C., Adlak K, Kumar S, Chandra R, Vijay V.K. (2023) Anaerobic digestion as a sustainable technology for efficiently utilizing biomass in the context of carbon neutrality and circular economy. *Environmental Research*, 116286
11. Kumar S *, D'Silva T.C., Kumar D, Isha A, Khan S.A., Chandra R, Malik A, Vijay V.K. (2023). Valorization of By-Products Produced During the Extraction and Purification of Biofuels. *Biofuel Extraction Techniques*. 307 - 332.

12. Isha A *, Jha B, D'Silva T.C., Kumar S, Khan S.A., Kumar D, Chandra R, Vijay V.K. (2023). Role of Additives on Anaerobic Digestion, Biomethane Generation, and Stabilization of Process Parameters. *Biofuel Extraction Techniques*. 101-124.
13. D'Silva T.C.*, Isha A, Kumar S, Khan SA, Kumar D, Chandra R, Vijay V.K. (2023). An Overview on Established and Emerging Biogas Upgradation Systems for Improving Biomethane Quality. *Biofuel Extraction Techniques*. 125-149.
14. Khan S.A.*, Kumar D, Kumar S, Isha A, D'Silva T.C., Chandra R., Vijay V.K. (2023). Biofuel Applications: Quality Control and Assurance, Techno-Economics and Environmental Sustainability. *Biofuel Extraction Techniques*. 367-420.
15. Kumar, P.*, Subbarao, P. M. V., Kala, L. D., & Vijay, V. K. (2023). Experimental assessment of producer gas generation using agricultural and forestry residues in a fixed bed downdraft gasifier. *Chemical Engineering Journal Advances*, 13, 100431.
16. Kumar, P.*, Subbarao, P. M. V., Vijay, V. K., Khan, S. A., Sharma, A., & Kala, L. D. (2023). Performance assessment of compression ignition engines powered by biogas, biodiesel, and producer gas mix derived from agriculture waste. *Biofuels*, 1-11.
17. Sakhiya, A. K., Vijay, V. K., & Kaushal, P.*(2023). Development of rice straw biochar through pyrolysis to improve drinking water quality in arsenic and manganese contaminated areas. *Surfaces and Interfaces*, 36, 102582.
18. Aier, I., Anand, A., Sakhiya, A. K., Kaushal, P.*, & Vijay, V. K. (2022). Modelling approaches to renewable energy sources for rural energy systems in India: a review and case study. *International Journal of Ambient Energy*, 43(1), 7860-7873.
19. Kumar, P.*, Subbarao, P. M. V., Kala, L., & Vijay, V. K. (2022). Influence of physical, mechanical, and thermal properties of biomass pellets from agriculture residue: Pearl millet cob and mix. *Bioresource Technology Reports*, 20, 101278.
20. Aier, I., Kakati, U., Vijay, V. K., & Kaushal, P.* (2022). Laboratory Testing and Investigation of TEG Cookstoves and Study of its Performance. *International Energy Journal*, 22(4).
21. Illathukandy, B.*, Saadabadi, S. A., Kuo, P. C., Wasajja, H., Lindeboom, R. E., Vijay, V. K., & Aravind, P. V. (2022). Solid oxide fuel cells (SOFCs) fed with biogas containing hydrogen chloride traces: Impact on direct internal reforming and electrochemical performance. *Electrochimica Acta*, 433, 141198.
22. Adlak, K.*, Chandra, R., Kumar, V., Pant, K. K., & Vijay, V. K. (2022). Life cycle assessment as a comparison tool for activated carbon preparations and biomethane storage for vehicular applications. *International Journal of Energy Research*, 46(12), 17362-17375.
23. Bhujbal, S. K., Ghosh, P.*, Vijay, V. K., & Singh, L.* (2022). Biomimicry of ruminant digestion strategies for accelerating lignocellulose bioconversion in anaerobic digestion. *Trends in Biotechnology*.

24. D'Silva, T. C., Isha, A., Verma, S., Shirsath, G., Chandra, R.*, Vijay, V. K., ... & Kovács, K. L. (2022). Anaerobic co-digestion of dry fallen leaves, fruit/vegetable wastes and cow dung without an active inoculum—A biomethane potential study. *Bioresource Technology Reports*, 19, 101189.
25. Adlak, K., Chandra, R.*, Vijay, V. K., & Pant, K. K. (2022). Suitability analysis of sustainable nanoporous adsorbents for higher biomethane adsorption and storage applications. *International Journal of Energy Research*, 46(11), 14779-14793.
26. Ahmed, I., Aier, I., Murtagh, N., Kaushal, P., Lakhanpaul, M., Vijay, V. K., & Parikh, P.* (2022). Thermo-electric generation (TEG) enabled cookstoves in a rural Indian community: a longitudinal study of user behaviours and perceptions. *Environmental Research Communications*, 4(8), 085003.
27. Kumar, P.*, Subbarao, P. M. V., Kala, L. D., & Vijay, V. K. (2022). Real-time performance assessment of open-top downdraft biomass gasifier system. *Cleaner Engineering and Technology*, 7, 100448.
28. Khan, S. A., D'Silva, T. C., Kumar, S., Chandra, R.*, Vijay, V. K., & Misra, A. (2022). Mutually trading off biochar and biogas sectors for broadening biomethane applications: A comprehensive review. *TIDEE: TERI Information Digest on Energy and Environment*, 21(1), 37-38.
29. Agarwal, N. K., Kumar, M., Kumar, S. S., Singh, L., Vijay, V. K., & Kumar, V.* (2022). Anaerobic digestion of sugarcane bagasse for biogas production and digestate valorization. *Chemosphere*, 133893.
30. Sakhiya, A. K., Vijay, V. K., & Kaushal, P.* (2022). Efficacy of rice straw derived biochar for removal of Pb²⁺ and Zn²⁺ from aqueous: Adsorption, thermodynamic and cost analysis. *Bioresource Technology Reports*, 17, 100920.
31. Bhujbal, S. K., Ghosh, P.*, Vijay, V. K., Rathour, R., Kumar, M., Singh, L., & Kapley, A. (2022). Biotechnological potential of rumen microbiota for sustainable bioconversion of lignocellulosic waste to biofuels and value-added products. *Science of The Total Environment*, 152773.
32. Kumar, H., Vijay, V. K.*, Subbarao, P. M., & Chandra, R.* (2022). Studies on the application of bio-carbon dioxide as controlled atmosphere on pest management in wheat grain storage. *Journal of Stored Products Research*, 95, 101911.
33. Pramanik, A., Singh, H.*, Chandra, R.*, Vijay, V. K., & Suresh, S. (2022). Amorphous carbon based nanofluids for direct radiative absorption in solar thermal concentrators—Experimental and computational study. *Renewable Energy*, 183, 651-661.
34. Sakhiya, A. K., Anand, A., Vijay, V. K., & Kaushal, P.* (2021). Thermal decomposition of rice straw from rice basin of India to improve energy-pollution nexus: Kinetic modeling and thermodynamic analysis. *Energy Nexus*, 4, 100026.

35. Kumar, P.*, Subbarao, P. M. V., Kala, L. D., & Vijay, V. K. (2021). Thermogravimetry and associated characteristics of pearl millet cob and eucalyptus biomass using differential thermal gravimetric analysis for thermochemical gasification. *Thermal Science and Engineering Progress*, 26, 101104.
36. D'Silva, T. C., Isha, A., Chandra, R.*, Vijay, V. K., Subbarao, P. M. V., Kumar, R., ... & Kovács, K. L. (2021). Enhancing methane production in anaerobic digestion through hydrogen assisted pathways—A state-of-the-art review. *Renewable and Sustainable Energy Reviews*, 151, 111536.
37. Kumar, P.*, Subbarao, P. M. V., Kala, L. D., & Vijay, V. K. (2021). Thermogravimetric devolatilization behavior of agricultural residue for generation of syngas. *Journal of Energy Resources Technology*, 143(11).
38. Kumar, P.*, Subbarao, P. M. V., & Vijay, V. K. (2021). Assessment of pyrolysis-kinetics of corncob and eucalyptus biomass residue using thermo gravimetric analysis. *International Journal of Sustainable Energy*, 40(9), 910-922.
39. Khan, S. A., D'Silva, T. C., Kumar, S., Chandra, R.*, Vijay, V. K., & Misra, A. (2021). Mutually trading off biochar and biogas sectors for broadening biomethane applications: A comprehensive review. *Journal of Cleaner Production*, 318, 128593.
40. Isha, A., D'Silva, T. C., Subbarao, P. M., Chandra, R.*, & Vijay, V. K. (2021). Stabilization of anaerobic digestion of kitchen wastes using protein-rich additives: Study of process performance, kinetic modelling and energy balance. *Bioresource Technology*, 337, 125331.
41. Sakhiya, A. K., Anand, A., Aier, I., Vijay, V. K., & Kaushal, P.* (2021). Suitability of rice straw for biochar production through slow pyrolysis: product characterization and thermodynamic analysis. *Bioresource Technology Reports*, 15, 100818.
42. Aier, I., Sakhiya, A. K., Anand, A., Kaushal, P.*, & Vijay, V. K. (2021). Sustainable Utilization of Paddy Straw in Punjab for Biochar Production: Estimating the Energy and Emission Potential. *International Energy Journal*, 21(3).
43. Kumar, S., D'Silva, T. C., Chandra, R.*, Malik, A., Vijay, V. K., & Misra, A. (2021). Strategies for boosting biomethane production from rice straw: A systematic review. *Bioresource Technology Reports*, 15, 100813.
44. Sakhiya, A. K., Baghel, P., Anand, A., Vijay, V. K., & Kaushal, P.* (2021). A comparative study of physical and chemical activation of rice straw derived biochar to enhance Zn²⁺ adsorption. *Bioresource Technology Reports*, 15, 100774.
45. Sahoo, S. S., Vijay, V. K., Chandra, R.*, & Kumar, H. (2021). Production and characterization of biochar produced from slow pyrolysis of pigeon pea stalk and bamboo. *Cleaner engineering and technology*, 3, 100101.
46. Bhujbal, S. K., Kumar, M., Vijay, V. K., Kumar, V., & Ghosh, P.* (2021). Potential of termite gut microbiota for biomethanation of lignocellulosic wastes: Current status and

future perspectives. *Reviews in Environmental Science and Bio/Technology*, 20(2), 419-438.

47. Adlak, K.*, Chandra, R., Vijay, V. K., & Pant, K. K. (2021). Physicochemical activation and palletisation of *Azadirachta indica* wood carbons for increased biomethane adsorbed energy storage. *Journal of Analytical and Applied Pyrolysis*, 155, 105102.
48. Shah, G., Ahmad, E., Pant, K. K.*, & Vijay, V. K.* (2021). Comprehending the contemporary state of art in biogas enrichment and CO₂ capture technologies via swing adsorption. *International Journal of Hydrogen Energy*, 46(9), 6588-6612.
49. Sakhiya, A. K., Aier, I., Pathak, S., Anand, A., Jha, S., Vijay, V. K., & Kaushal, P.* (2021). Copper (II) removal from aqua solution using rice straw derived biochar. *Materials Today: Proceedings*, 43, 740-745.
50. Shah, G., Ahmad, E., Pant, K. K., & Vijay, V. K.* (2021). Comprehending the contemporary state of art in biogas enrichment and CO₂ capture technologies via swing adsorption. *International Journal of Hydrogen Energy*, 46(9), 6588-6612.
51. Sakhiya, A. K., Anand, A., Aier, I., Baghel, P., Vijay, V. K., & Kaushal, P.* (2021). Sustainable utilization of rice straw to mitigate climate change: a bioenergy approach. *Materials Today: Proceedings*, 46, 5366-5371.
52. Mirmohamadsadeghi, S., Karimi, K.*, Azarbaijani, R., Yeganeh, L. P., Angelidaki, I., Nizami, A. S., ... & Tabatabaei, M.* (2021). Pre-treatment of lignocelluloses for enhanced biogas production: a review on influencing mechanisms and the importance of microbial diversity. *Renewable and Sustainable Energy Reviews*, 135, 110173.
53. Isha, A., Kumar, S., Jha, B., Subbarao, P. M., Chandra, R.*, & Vijay, V. K. (2020). Development of stabilization methods using a pilot scale anaerobic digester for seasonal variations in kitchen wastes for improved methane production with zero breakdowns. *Cleaner Engineering and Technology*, 1, 100015.
54. Kapoor, R.*, Ghosh, P., Tyagi, B., Vijay, V. K., Vijay, V., Thakur, I. S., ... & Kumar, A.* (2020). Advances in biogas valorization and utilization systems: A comprehensive review. *Journal of Cleaner Production*, 273, 123052.
55. Kapoor, R., Ghosh, P., Kumar, M., Sengupta, S., Gupta, A., Kumar, S. S., ... & Pant, D.* (2020). Valorization of agricultural waste for biogas based circular economy in India: A research outlook. *Bioresource Technology*, 304, 123036.
56. Paritosh, K., Balan, V., Vijay, V. K., & Vivekanand, V.* (2020). Simultaneous alkaline treatment of pearl millet straw for enhanced solid state anaerobic digestion: Experimental investigation and energy analysis. *Journal of Cleaner Production*, 252, 119798.

57. Ghosh, P.*, Kumar, M., Kapoor, R., Kumar, S. S., Singh, L., Vijay, V., ... & Thakur, I. S. (2020). Enhanced biogas production from municipal solid waste via co-digestion with sewage sludge and metabolic pathway analysis. *Bioresource technology*, 296, 122275.
58. Kapoor, R.*, Subbarao, P. M. V., & Vijay, V. K.* (2019). Integration of flash vessel in water scrubbing biogas upgrading system for maximum methane recovery. *Bioresource Technology Reports*, 7, 100251.
59. Kapoor, R.*, Ghosh, P., Kumar, M., & Vijay, V. K.* (2019). Evaluation of biogas upgrading technologies and future perspectives: a review. *Environmental Science and Pollution Research*, 26, 11631-11661.
60. Kumar, P., Prajapati, S. K.*, Malik, A.*, & Vijay, V. K. (2019). Evaluation of biomethane potential of waste algal biomass collected from eutrophied lake: effect of source of inocula, co-substrate, and VS loading. *Journal of Applied Phycology*, 31, 533-545.
61. Ghosh, P.*, Shah, G., Chandra, R., Sahota, S., Kumar, H., Vijay, V. K., & Thakur, I. S. (2019). Assessment of methane emissions and energy recovery potential from the municipal solid waste landfills of Delhi, India. *Bioresource technology*, 272, 611-615.
62. Sahota, S., Shah, G., Ghosh, P.*, Kapoor, R., Sengupta, S., Singh, P., ... & Thakur, I. S. (2018). Review of trends in biogas upgradation technologies and future perspectives. *Bioresource Technology Reports*, 1, 79-88.
63. Sahota, S., Vijay, V. K., Subbarao, P. M. V., Chandra, R., Ghosh, P.*, Shah, G., ... & Thakur, I. S. (2018). Characterization of leaf waste based biochar for cost effective hydrogen sulphide removal from biogas. *Bioresource technology*, 250, 635-641.
64. Swati, T. I., Vijay, V. K., & Ghosh, P.* (2018). Scenario of landfilling in India: problems, challenges, and recommendations. *Handbook of environmental materials management*, 10, 978-3.
65. Kapoor, R.*, Subbarao, P. M. V., Vijay, V. K.*, Shah, G., Sahota, S., Singh, D., & Verma, M. (2017). Factors affecting methane loss from a water scrubbing based biogas upgrading system. *Applied Energy*, 208, 1379-1388.
66. Kumar, P., Prajapati, S. K.*, Malik, A.*, & Vijay, V. K. (2017). Cultivation of native algal consortium in semi-continuous pilot scale raceway pond for greywater treatment coupled with potential methane production. *Journal of environmental chemical engineering*, 5(6), 5581-5587.
67. Trivedi, A., Verma, A. R., Kaur, S., Jha, B., Vijay, V., Chandra, R.*, ... & Prasad, R. (2017). Sustainable bio-energy production models for eradicating open field burning of paddy straw in Punjab, India. *Energy*, 127, 310-317.
68. Mal, R.*, Prasad, R., & Vijay, V. K. (2017). Product technology, materials overview and economic aspects for development of forced draft TEG cookstove. *International Journal of Materials and Product Technology*, 55(1-3), 74-92.

69. Mal, R.*, Prasad, R., & Vijay, V. K. (2016). Multi-functionality clean biomass cookstove for off-grid areas. *Process Safety and Environmental Protection*, 104, 85-94.
70. Krishania, M.*, Vijay, V. K., & Chandra, R. (2016). Performance evaluation of various bioreactors for methane fermentation of pretreated wheat straw with cattle manure. *Green Processing and Synthesis*, 5(2), 113-121.
71. Prajapati, S. K., Bhattacharya, A., Kumar, P., Malik, A.*, & Vijay, V. K. (2016). A method for simultaneous bioflocculation and pretreatment of algal biomass targeting improved methane production. *Green Chemistry*, 18(19), 5230-5238.
72. Krishania, M.*, Vijay, V. K., & Chandra, R. (2015). An Enhancement of Methane Fermentation by Combined Alkali Pretreatment of Wheat Straw. *Journal of Biobased Materials and Bioenergy*, 9(3), 327-333.
73. Prajapati, S. K., Bhattacharya, A., Malik, A.*, & Vijay, V. K. (2015). Pretreatment of algal biomass using fungal crude enzymes. *Algal research*, 8, 8-14.
74. Mal, R.*, Prasad, R., & Vijay, V. K. (2015). Design and performance evaluation of thermoelectric generator stove and comparison with traditional, natural and forced draft stoves. *International Journal of Energy Technology and Policy*, 11(3), 220-233.
75. Jha, B., Kapoor, R. M., Vijay, V., Vijay, V. K.*, & Chandra, R. (2015). Biogas: A sustainable and potential fuel for transport application. *J. Biofuels Bioenergy*, 1(1), 28-33.
76. Mal, R.*, Prasad, R., Vijay, V. K., & Verma, A. R. (2015). The design, development and performance evaluation of thermoelectric generator (TEG) integrated forced draft biomass cookstove. *Procedia Computer Science*, 52, 723-729.
77. Prajapati, S. K., Malik, A.*, Vijay, V. K., & Sreekrishnan, T. R. (2015). Enhanced methane production from algal biomass through short duration enzymatic pretreatment and codigestion with carbon rich waste. *RSC advances*, 5(82), 67175-67183.
78. Prajapati, S. K., Choudhary, P., Malik, A.*, & Vijay, V. K. (2014). Algae mediated treatment and bioenergy generation process for handling liquid and solid waste from dairy cattle farm. *Bioresource Technology*, 167, 260-268.
79. Prajapati, S. K., Kumar, P., Malik, A.*, & Vijay, V. K. (2014). Bioconversion of algae to methane and subsequent utilization of digestate for algae cultivation: a closed loop bioenergy generation process. *Bioresource technology*, 158, 174-180.
80. Prajapati, S. K., Malik, A.*, & Vijay, V. K. (2014). Comparative evaluation of biomass production and bioenergy generation potential of *Chlorella* spp. through anaerobic digestion. *Applied Energy*, 114, 790-797.
81. Mal, R.*, Prasad, R., Vijay, V. K., Ranjan, A., & Tiwari, R. (2014). Thermoelectric Power Generator Integrated Cookstove: A Sustainable Approach of Waste Heat to Energy

Conversion. *International Journal of Research in Engineering and Technology (IJRET)*, 3, 35-40.

82. Mal, R. *, Prasad, R., & Vijay, V. K. (2014). Renewable energy from biomass cookstoves for off grid rural areas. *International Proceedings of chemical, biological and environmental engineering*, 64, 113-17.
83. Prajapati, S. K., Kaushik, P., Malik, A. *, & Vijay, V. K. (2013). Phycoremediation coupled production of algal biomass, harvesting and anaerobic digestion: possibilities and challenges. *Biotechnology Advances*, 31(8), 1408-1425.
84. Krishania, M., Vijay, V. K., & Chandra, R. * (2013). Methane fermentation and kinetics of wheat straw pretreated substrates co-digested with cattle manure in batch assay. *Energy*, 57, 359-367.
85. Gedam, K. H. *, Gedam, R., Prasad, R., & Vijay, V. K. (2013). Value addition of traditional milk products: the study for rural entrepreneurial development. *International Journal of Entrepreneurship & Business Environment Perspectives*, 2(3), 537.
86. Subramanian, K. A. *, Mathad, V. C., Vijay, V. K., & Subbarao, P. M. V. (2013). Comparative evaluation of emission and fuel economy of an automotive spark ignition vehicle fuelled with methane enriched biogas and CNG using chassis dynamometer. *Applied Energy*, 105, 17-29.
87. Prajapati, S. K., Kaushik, P., Malik, A. *, & Vijay, V. K. (2013). Phycoremediation and biogas potential of native algal isolates from soil and wastewater. *Bioresource technology*, 135, 232-238.
88. Krishania, M. *, Kumar, V., Vijay, V. K., & Malik, A. (2013). Analysis of different techniques used for improvement of biomethanation process: a review. *Fuel*, 106, 1-9.
89. Gupta, A., Kumar, A., Sharma, S. *, & Vijay, V. K. (2013). Comparative evaluation of raw and detoxified mahua seed cake for biogas production. *Applied Energy*, 102, 1514-1521.
90. Chandra, R. *, Vijay, V. K., Subbarao, P. M. V., & Khura, T. K. (2012). Production of methane from anaerobic digestion of jatropha and pongamia oil cakes. *Applied Energy*, 93, 148-159.
91. Rani, N. *, Maheshwari, R. C., Kumar, V., & Vijay, V. K. (2011). Purification of pulp and paper mill effluent through Typha and Canna using constructed wetlands technology. *Journal of Water Reuse and Desalination*, 1(4), 237-242.
92. Chandra, R. *, Vijay, V. K., Subbarao, P. M. V., & Khura, T. K. (2011). Performance evaluation of a constant speed IC engine on CNG, methane enriched biogas and biogas. *Applied energy*, 88(11), 3969-3977.
93. Pradhan, R. C., Mishra, S. *, Naik, S. N., Bhatnagar, N., & Vijay, V. K. (2011). Oil expression from Jatropha seeds using a screw press expeller. *Biosystems engineering*, 109(2), 158-166.

94. Pradhan, R. C., Naik, S. N.*, Bhatnagar, N., & Vijay, V. K. (2010). Physical properties of tree borne oil seed: potential biodiesel feedstock in India. *Assam University Journal of Science and Technology*, 4(2), 46-53.
95. Pradhan, R. C., Naik, S. N.*, Bhatnagar, N., & Vijay, V. K. (2010). Design, development and testing of hand-operated decorticator for *Jatropha* fruit. *Applied Energy*, 87(3), 762-768.
96. Pradhan, R. C., Naik, S. N.*, Bhatnagar, N., & Vijay, V. K. (2009). Moisture-dependent physical properties of *jatropha* fruit. *Industrial crops and products*, 29(2-3), 341-347.
97. Sofia, P. K.*, Prasad, R., Vijay, V. K., & Srivastava, A. K. (2007). Evaluation of antibacterial activity of Indian spices against common foodborne pathogens. *International journal of food science & technology*, 42(8), 910-915.
98. Gedam, K. *, Prasad, R., Vijay, V. K., & Chanda, G. C. (2007). The study on UHT processing of milk: A versatile option for rural sector. *World J Dairy Food Sci*, 2(2), 49-53.
99. Prasad, J.*, Vijay, V. K., Tiwari, G. N., & Sorayan, V. P. S. (2006). Study on performance evaluation of hybrid drier for turmeric (*Curcuma longa* L.) drying at village scale. *Journal of Food Engineering*, 75(4), 497-502.
100. Prasad, J.*, Prasad, A., & Vijay, V. K. (2006). Studies on the drying characteristics of *Zingiber officinale* under open sun and solar biomass (hybrid) drying. *International journal of green energy*, 3(1), 79-89.
101. Kapdi, S. S.*, Vijay, V. K., Rajesh, S. K., & Prasad, R. (2006). Upgrading biogas for utilization as a vehicle fuel. *Asian Journal on Energy and Environment*, 7(4), 387-393.
102. Prasad, J.*, & Vijay, V. K.* (2005). Open sun drying of *tinospora cordifolia*, *Curcuma longa* L. and *zingiber officinale*. Thermal analysis. *Food science and technology international*, 11(6), 409-416.
103. Prasad, J.*, & Vijay, V. K.* (2005). Experimental studies on drying of *Zingiber officinale*, *Curcuma longa* l. and *Tinospora cordifolia* in solar-biomass hybrid drier. *Renewable energy*, 30(14), 2097-2109.
104. Kapdi, S. S., Vijay, V. K.*, Rajesh, S. K., & Prasad, R. (2005). Biogas scrubbing, compression and storage: perspective and prospectus in Indian context. *Renewable energy*, 30(8), 1195-1202.
105. Vijay, V. K.* (2004). Developing a Small Unit for Biodiesel Production from Non edible oil seeds-A village Enterprise. *Journal of Rural Technology*, CSIR, 1(5), 247-253.
106. Prasad, J.*, & Vijay, V. K.* (2004). 47. Study on Performance Evaluation of Solar cum Biomass Dryer for Turmeric Drying at Farmer Scale. *Water and Energy Abstracts*, 14(4), 21-21.

107. Vijay, V. K.*, Prasad, R., Singh, J. P., & Sorayan, V. P. S. (1996). A case for biogas energy application for rural industries in India. *Renewable energy*, 9(1-4), 993-996.

Chapter in Book:

1. Energy Security and Biogas chapter in “India and Russia- Problems in Ensuring Energy Security” Editors: RK Mishra, Ranjit Sinha and R B Rybakov, Academic Foundation, New Delhi 2011 pp 167-180
2. **Vijay VK**, Kapoor R, Trivedi A., Biogas as Clean Fuel for Cooking and Transportation Needs in India. In *Advances in Bioprocess Technology 2015* (pp. 257-275). Springer International Publishing.
3. Vijay Vandit, Singh Priyanka, **Vijay VK**, “Ensure Access to Affordable, Reliable, Sustainable and Modern Energy and Role of Panchayat”, chapter in “Rural Development in India. Edited by Rajesh K. Sinha.

B. List of articles in popular magazines or newspapers:

1. Navi karniya Urja Srot Awam Paryavaran Surakhsa, Booklet Published by Department of Environment, Govt. of Rajasthan (1990).
2. Ghas-Foos Avam Bhusi Se Chalne Vala Sterling Engine, `Avishkar'. National Research Development Corporation, March 1991, page 115-117.
3. "Engine Endhan Ke Roop Me Biogas" in `Avishkar', National Research Development Corporation, March 1991, page 115-117.
4. Biogas Se Engine Chalaiye Bahukimti Endhan Bachaiye" in "Gram-Shilp", National Research Development Corporation, New Delhi, April 1992. pp. 2-4.
5. `Biogas Sayantra Ka Apsista: Uttam Khad', "Gram Shilp" by NRDS, New Delhi, August 1992, pp 16-17.
6. "Purifying Brackish and Sea Water through Solar Energy", *Invention Intelligence*, NRDC, New Delhi, 4 (1-2); 59-64, 1990.
7. A Ray of New Hope-Non Conventional Energy Sources, *TECH - VIEW 91*, CTAE Udaipur.
8. Yuvaon Ki Bhagidari: Gramin Vikas Avam Rojgar, *TECH-VIEW 92*, CTAE Udaipur pp 24-27.
9. Biogas Adharit Gramin Audhyodikaran – Ek Nai Disha "JIGYASA" - IIT Delhi Year 1996 Vol, 9 pp 26-29.
10. Biogas Sayantra Sthapna, Vikas Avam Upyog, "JIGYASA" IIT Delhi, year 1996 Vol 9 pp 35-39.
11. Gramin Arthvyavastha Ka Muladhar – Pashupalan, Jigyasa, IIT Delhi, Vol. 10 year 1996 pp 64-65.

12. PashuDhan: Gramin Arthvyastha Kamulak, KURUKHESTRA, Govt. of India, New Delhi January 1999, pp. 38-40.
13. Biogas Ek Behtar Vikalp, Swadeshi Patrika Vol 8 No. 11, August 2003, p 29-30 New Delhi.
14. Panchgavya Avam Gramin Arthvyavastha, YOJANA, December 2003 GoI Publication, New Delhi pp 7-10.
15. Giloy: Gunkari Aushdi, Jaishree, V.K. Vijay & VPS Sorayan, Sampark Newsletter, IIT Delhi Vol IX No. 3, February 15, 2004 Kapdi S S, Vijay V K, Prasad R. 2003.
16. Biogas Bottling: Sambhavana Avam Avsar .Jigyasa, an IIT Delhi Publication. Vol. 17: 30-31.
17. Kapdi S.S., Vijay V.K., Prasad R. 2003. Biogas Bottling Aur Urja Svavalambhan . IREDA News, Vol. 14(2): 37-39. Kapdi S.S., Vijay V.K., Prasad R. 2003.
18. Biogas Bottling and GraminVikas. In Smarika of Prakriti-2003: a Vishav Ayurved Parishad Publication. pp 127-128.
19. Virendra Kumar, Biogas Bottling dwara Gramin Urja Swavlamban: Ek Nai Disha, Yojna, November 2003 pp 34-36
20. VahnoTathaKrishi Me Prayog Hone Wale Engine KeLiye Biodiesel-EkSulabhAvamSwachaVaikalpicEendhan, IREDA NEWS Vol 1 No.3 July – Sept 2004 pp 61-66.
21. Biogas AurVahanEendhan, IREDA News Vol.2 No. 1 Jan- Mar 2005, pp 59-60.
22. Samuha Udyamita Se Gramin Arthavyavastha Me Sudhar Sambhav, Yojana, Hindi, May 2005.
23. Biogas Bottling: Kyo Avam Kaise : S.S. Kapdi and V.K. Vijay, Jigyasa Vol : 19 (2005) pp – 53-55.
24. Haldi Ke Vibbhin Gharelu Upyog: Jayshree & V.K. Vijay, JigyasaVol : 19 (2005) pp – 84-87.
25. Biogas KaVahno Me Upyog Hetu Samridhikaran Avam Cylinder Me Bharne Ki Takniki, Jigyasa, Vol 20 (2006) pp 30-32 V.K. Vijay.
26. Biogas Enrichment and Bottling Technology for Vehicular Use – Science Tech Entrepreneur, E-zine, Nov 2006.
27. Using Biogas as CNG for Vehicles- Virendra Kumar Vijay, Invention Intelligence, Jan-Feb 2007 PP 11-13.
28. Jatropha and Karanj Ki Khali- Ek Bahumulya Biogas Utpadan Ka Stotra – V.K. Vijay, P.M.V. Subbarao and Ram Chandra , Jigyasa Vol 22 (2008) pp 114-115.
29. Biogas se Bharat me grameen Urja Surakhsa, - V.K.Vijay, Poonam Chaudhary, Arti Singh, Jigyasa, IIT Delhi Vol 23 (2009) pp 63-65
30. Burade se Gas- M.R.Ravi, SangeetaKohli and V.K.Vijay, Jigyasa, IIT Delhi Vol 23 (2009) pp 56-62
31. Biogas production from deoiled seed cakes of Jatropha and pongamia, Ramchandra, V.K.Vijay and PMV Subbarao, Akhsay Urja, Monthly magazine of Ministry of New and Renewable Energy, Vol. 3 issue2, October 2009 pp 17-22
32. S. K. Prajapati, P. Choudhary, P. Chawla, G. Sharma, A. Malik, V. K. Vijay, S. Sharma, T. R. Sreekrishnan, 2012.ShaivalkeBahumukhiUpyog (Vaijyanic Samiksha), Jigyasa (IIT Delhi Publication) 25: 112 – 5

33. S. K. Prajapati, P. Choudhary, P. Chawla, G. Sharma, A. Malik, V. K. Vijay, S. Sharma, T. R. Sreekrishnan, 2012. *Chlorella minutissimashaival: Apshishtjal pravandhanainvam biogas utpadan.*, Jigyasa (IIT Delhi Publication) 25: 139 – 41
34. S. K. Prajapati, P. Choudhary, P. Kumar, P. Chawla, G. Sharma, A. Malik, V.K. Vijay. *Apshishtjalainvam carbon dioxide kepabandhantatha biogas utpadan me shaivalkibhumika.* Jigyasa (IIT Delhi Publication).
35. Ramchandra, V.K.Vijay and Abhinav Trivedi, Second Generation Biofuel Production: Biomethanation and Bioethanol Production from Lignocellulosic Agricultural crop wastes biomass, Akhsay Urja, Monthly magazine of Ministry of New and Renewable Energy, Vol. 8 issue 5, April 2015 pp 22-25
36. V.K.Vijay. “Rashtriya Shiksha Niti: Takniki shiksha me Badlaav ki Avshyakata”. Vidya Bharati Pradeepika. Oct-Dec, 2020

C. Participation and scholarly presentations in conferences:

National:

1. **Vijay, V.K.** and Rathore, N.S. (1988). Study on Biogas as Fuel for SI. Engines. National Solar Energy Convention, Hyderabad, AR-BM -01.
2. Rathore, N.S. and **Vijay, V.K.** (1989) Recycling and Reuse of Agricultural Waste, National Young Scientists Seminar on Environmental Pollution, Bangalore.
3. **Vijay, V.K.** and Anwar. S.I. (1989) Prospects of Solar Drying in Udaipur in: Solar Drying ed. A.N. Mathur& Yusuf Ali, Himanshu Publications, Udaipur pp. 151-156.
4. **Vijay, V.K.** and Rathore, N.S. (1989) Potential and Applicability of Solar Energy in the Context of Udaipur Region. Proceedings of Silver Jubilee Convention of Indian Society of Agricultural Engineers, Energy in Agriculture. pp 74-78.
5. **Vijay, V.K.**, Saxena. C.K. and Rathore, N.S. (1990) Study on Solar Photovoltaic Pumping System, In: Renewable Energy and Environment. (Ed. A.N. Mathur& N.S. Rathore) Himansu Publications Udaipur pp. 415-420.
6. **Vijay, V.K.**, Changela, V.K. and Rathore, N.S. (1990) Development of an Efficient Wind Trapping System. In: Renewable Energy and Environment (Ed. A.N. Mathur& N.S. Rathore) Himanshu Publications. Udaipur, pp. 441-444.
7. **Vijay, V.K.**, Manohar, S. and Rathore, N.S. (1990) Study on Rural Cooking Aspects and Improvement in Appliances In: Integrated Renewable Energy for Rural Development, Tata McGraw Hill Pub. New Delhi, pp. 343-347.
8. **Vijay, V.K.** and Rathore, N.S. (1990) Comparative Study on Packed Bed and Without Packed Bed Scrubbing and their Applications. In: Integrated Renewable Energy for Rural Development, Tata McGraw Hill Pub., New Delhi. pp. 486-489.
9. Saxena, C.K., **Vijay, V.K.** Rathore, N.S. and Manohar, S. (1990). Performance Estimation of Solar Photovoltaic Irrigation Pumping System. In: Integrated Renewable Energy for Rural Development, Tata McGraw Hill, New Delhi. pp. 325-328.
10. **Vijay, V.K.**, Kothari, S. and Gaur, J. (1992) Environmental Upgradation of a Village by Mass Adoption of Biogas: A Case Study, In: New Dimension in Renewable Energy (Ed. N.K. Bansal) Tata McGraw Hills Pub., New Delhi, pp. 403-406.
11. **Vijay, V.K.** Pandey, S and Jain, S. (1992) Performance Evaluation of Biogas Domestic Appliances on Different Pressure Conditions. In: New Dimensions in Renewable Energy. (Ed. N.K. Bansal), TMcGraw Hill Pub., New Delhi, pp. 407-410.
12. **Vijay, V.K.**, Rathore, N.S. and Mathur, A.N. (1993) Technoeconomics of Mechanical Post Hole Digger for Energy Plantation. In: Afforestation of Arid Lands (Ed. A.P. Dwivedi& G.N. Gupta), Scientific Publishers Jodhpur, pp. 459-462.

13. **Vijay, V.K.** and Mathur, A.N. (1993) Increasing Global Temperature: Causes, Possible Consequences and Remedies, IX National Convention of Environmental Engineers, The Institution of Engineers, Rajasthan State Centre, Jaipur, No. 11-12, 1993.
14. **Vijay, V.K.**, Rathore, N.S. and Mathur, A.N. (1993) Bandhej-A Tye and Dye Traditional Industry of Mewar Region, Congress on Traditional Science and Technologies of India, IIT Bombay, Proceedings Keynote Papers and Extended Abstracts, Part Textile-13, pp. 7.18.
15. **Vijay, V.K.** and Prasad, R. (1993) A Traditional Technology of Woolen Namda Manufacturing in Tonk District of Rajasthan and its Existence. Proceedings of Congress on Traditional Science and Technologies, IIT Bombay part-Rural Industries- 20 00 pp 9.21.
16. **Vijay V.K.** and Mathur, A.N. (1994) Performance Evaluation of Solar Photovoltaic Deep Well Pump based Drip Irrigation System, Proceedings of National Seminar on Conservation of Energy in Agricultural Pumping System, Central Institute for Rural Electrification, Hyderabad.
17. Prasad, R. Patel, HR., Roy, U.N. and **Vijay, V.K.** (1995) Integration of Information Technology Network with Remote Sensing and Geographical Information System for Rural Development Planning and Management, Proceedings of Abstracts, Conference on Informatics for Sustainable Development, NIC, New Delhi.
18. **Vijay, V.K.**, Singh, J. and Prasad, R. (1995) Biogas Electricity for Rural Industrialization, Proceedings of National Conference on Conversion and Utilization of Biomass, MGIIREP, Delhi pp. 224-227.
19. Singh, J. and **Vijay, V.K.** (1995) Environmental Protection, Peoples Participation and Indian Traditional Culture, In: Public participation in Environmental Management (Ed. Kamta Prasad) Institute for Resource Management and Economic Development, Delhi.
20. **Vijay, V.K.**, Jagpal Singh & Rajendra Prasad, (1996) "Peoples Participation for Sustainable Drinking water supply System in Rural Areas" Proceedings of Third National Water Congress, Feb. 6-18, 1996. New Delhi.
21. **Vijay V.K.**, Singh, Jagpal, Rajendra Prasad, & Gaur R.R. (1996) "Using Clean Energy to Develop Sustainable Rural Enterprise: An approach", in proceedings of NSEC 96, Eds. Gosh, B., Saha, S.K & Basu, S. "Towards Clean Energy" Tata McGraw will Publishing House Co Ltd. New Delhi, pp 331-334.
22. **Vijay V.K.**, Mishra, D.K. Singh Jagpal & Rajendra Prasad (1997) "Eco-friendly Energy System for Sustainable Rural Industrialization", In Proceedings of 20th annual International Conference, International Association for Energy Economics". TERI, January 22-24, 1997 New Delhi. pp. 5188-525.
23. Singh, Jagpal, Satbir Singh and **V.K. Vijay** (1997) "System Approach to Sustainable Development" Proceedings of International Conference on Civil Engineering for Sustainable Development University of Roorkee, Feb 13-15, pp 819-828.
24. **Vijay, V.K.**, Rajendra Prasad & Jagpal Singh (1997) Local Energy Resources for Sustainable Rural Enterprises Development, XXXII Annual convention of ISAE, April 16-18, 97 RAU Ludhiana (EAG-97-47).
25. **Vijay V.K.**, Rajendra Prasad & Jagpal, Singh (1997) A Case for Biogas Based Rural Industrialization in Bioenergy for Rural Energisation Ed. R.C. Maheshwari & Pradeep Chaturvedi, Concept Publishing Company, New Delhi. pp. 169-172.
26. **Vijay V.K.** & Mathur A.N. (1998) programmes of Vocationalisation of Renewable Energy Education at Rajasthan Agricultural University, 6th International Symposium on Renewable Energy Education, TERI New Delhi 26-27 Nov.
27. **Vijay V.K.** and Mathur A.N. (1999) Biomass Energy System for Upliftment of Rural Areas, International Conference on Energy Storage Technologies & Systems, Devi Ahilya University Indore, Feb 1-4,-9 paper ES 202/146.

28. **Vijay V.K.** & Mathur, A.N. (1999) Employment Generation through Use of Renewable Energy in Agricultural Production & Processing, 4th Agricultural Science Congress, Jaipur 21-24 Feb., Page 32, NAAS, New Delhi.
29. **Vijay V.K.**, Rathore N.S., Ali, N.M. and Mathur A.N. (1999) Power Generation from Municipal Solid Waste : A Case Study of Udaipur City, XXXIV Annual Convention, ISAE, CCS Haryana Agricultural University, Hissar Dec. 16-18, 1999 EA – 99-I-6 pp EA4.
30. **V.K. Vijay** (2000) Need and Analysis for Balanced Development of Higher Education, National Seminar on State of Higher Education and Policy Imperative for the Balanced Development, Sukhadia University, Udaipur, Jan 28-29, 2000.
31. **Vijay, V.K.** (2000) Renewable Energy System for Commercial Rural Applications, Proceedings of National Conference on Commercialization Aspects of Renewable Energy Sources, April 28-29, 2000 Udaipur pp175-178.
32. Singh, J., **Vijay, V.K.** and Prasad, R. (2000) Commercialization of Renewable Energy Sources in Rural Areas, Proceedings of National Conference on Commercialization Aspects of Renewable Energy Sources, April 28-29, 2000 Udaipur pp185-192.
33. Sharma, D., **Vijay V.K.**, Karoliwal A. and Chaturvedi, S. (2001) Study on Utilization of Solar Energy for Operating Water Pumps, Proceedings of xxxv Annual Convention of ISAE, Jan 22-24, 2001, College of Engg. & Tech., Bhubneshwar, EA-2K-11-04.
34. **Vijay, V.K.** (2001) Indigenous Approach for Holistic Development in Context to Self Reliance in Energy, Seminar on “Direction of Holistic Development, Udaipur Feb. 14-15, 2001.
35. **Vijay, V.K.** and Tarun Kara (2002) Study on Biomethanation of Municipal Solid Waste Disposal for Energy Recovery, Proc. Of International Conference on Waste to Energy, Ed. M.P. Poonia, J. Mathur et.al., Malviya Regional Engineering College, Jaipur March 1-3, 2002.
36. Mathur, Meeta and **Vijay, V.K.** (2002) Study on Hospital Waste Management Practices in Udaipur, Proceeding of International Conference on Waste to Energy, Ed. M.P. Poonia, J. Mathur et.al., Malviya Regional Engineering College, Jaipur March 1-3, 2002.
37. Dashora, P.K., **Vijay, V.K.** and VasudevDevnani (2002) Environmental Protection Through Indian Waste to Energy Program, in the Proceedings of the 11th National Symposium on Environment, Sponsored by BARC, Organized at RCA Udaipur, June 5-7, 2002 Ed. S. Sadasivan et.al. pp 175-178.
38. **Vijay, V.K.** and Rajendra Prasad (2002) Approach for Sustainable Agriculture and Rural Industries Development Based on Renewable Energy Sources, 2nd International Conference on Sustainable Agriculture, Water Resources Development and Earth Care Policies, BhooVigyanVikas Foundation New Delhi 18-20 December, 2002 pp 81.
39. Garg, Barkha, **V.K. Vijay** & Rajendra Prasad (2002) Dissemination of Knowledge Regarding Utilization of Soybean in Routine Diets of Rural Masses, 2nd International Conference on Sustainable Agriculture, Water Resources Development and Earth Care Policies, BhooVigyanVikas Foundation New Delhi 18-20 December, 2002.
40. **Vijay V.K.** and Rajendra Prasad (2002) Impact on Environment and Emission Reduction with Biodiesel, Proceedings of Abstracts in the Conference on Ethanol and Biodiesel, Sept. 18-19, 2002, CBMD New Delhi pp 87.
41. **Vijay V.K.**, Rajesh S.K, S.S. Kapadi and R.R. Gaur (2003) Development of Bottling System for Compressed Biogas in Rural Areas, Proceedings of 37th Annual Convention of ISAE at Udaipur January 29-31, 2003
42. **Vijay, V.K.**, R.R. Gaur, S.K. Rajesh, (2003) Developing a Small Scale Unit for Biodiesel Production from Non-Edible Oil Seeds – A Village Enterprise” Int. Seminar on Downsizing Technology for Rural Development, (ISDTRD-2003) Oct. 7-9, 2003 RRL Bhubneshwar, pp 346-354.
43. **Vijay, V.K.**, ShailendraDevpura, S.K. Saha and R.R. Gaur (2003) Development of Animal Driven Prime Mover for Various Agro- Industrial Applications, Int. Seminar on

- Downsizing Technology for Rural Development, (ISDTRD-2003) Oct. 7-9, 2003 RRL Bhuvneshwar, pp 424-429.
44. Kapadi, S.S., **V.K. Vijay**, Rajesh S.K., R.R. Gaur (2003) “Feasibility Study on Purification and Compression of Biogas for Rural Areas” Proceedings of Int. Conf. on Energy and Environmental Technologies for Sustainable Development, Ed. U. Pandel and M.P. Poonia, 8-10, October, 2003 Jaipur, India pp 112-116.
 45. **Vijay, V.K.**, R.R. Gaur and G.P. Govil (2003) “A Model for Rural Industrial Estate as a Building Block for Sustainable Development” Proceedings of Int. Conf. on Energy and Environmental Technologies for Sustainable development, Ed. U. Pandel and M.P. Poonia, 8-10, October, 2003 Jaipur, India pp 584-590.
 46. Deshmukh, S.G., Agrawal, V., **Vijay, V.K.**, Pant, A.K. (2003) Some Reflections on E-Governance and the Indian Democracy, Proceedings of International Conference on E Governance-Towards E-Government: Management Challenges, Ed. M.P. Gupta, Tata McGraw Hill Pub. Co. Ltd. New Delhi Dec pp 568-573.
 47. Jaishree Prasad & **V.K. Vijay** (2004) Study on Performance Evaluation of Solar Cum Biomass Dryer for Turmeric Drying At Farmer Scale, Proc. of Int. conf. on Renewable Energy, New Delhi organized by Central Board of Irrigation and Power, 6-8 October, 2004 pp DE 192-202.
 48. **V.K. Vijay**, S.S. Kapdi and P.M.V. Subbarao (2004) Development of Biogas Scrubbing and Bottling System, Proceedings of International Conference on Emerging Technologies in Agricultural Engineering, on Power Machinery System and Ergonomics, Safety and Health, Ananya Publishers, New Delhi, at IIT Kharagpur 14-17 Dec. 2004 pp 236-240.
 49. Kapdi, S.S., **V.K. Vijay** & Rajendra Prasad (2005) Biogas Bottling For Rural Entrepreneurship Development, Utthan- 2005 , Seminar on Sustainable Development – Technology Initiatives for the Development of Rural Masses, Feb 18-20, 2005 Organized by CTSD, Faridabad pp-118-123.
 50. **Vijay, V.K.** (2005) Biogas Purification and Bottling with PROM for Rural Industrialization, Proceedings of International Workshop on Phosphate Rich Organic Manure, 28 Dec 2005 at Udaipur by PROM Society.
 51. Gaushalas as a Center for Cottage Industry and Rural Development, 2005, National Conference on Utility of Gaushalas for Improvement and Conservation of Indigenous Cattle, NBAGR, Karnal 27-28 December, 2005.
 52. Sofia P.K., Rajendra Prasad, **V.K. Vijay** and A.K. Srivastava, “Spice: Antimicrobial” Paper presented at “International Conference on Science and Technology for Sustainable Development”, held at St. Berchmans College, Kerala India from 10-13 August 2005.
 53. Sofia P.K., Rajendra Prasad, **V.K. Vijay** and A.K. Srivastava, “Evaluation of Antibacterial Properties of Spices” Paper Presented at “International Conference on Environmental Management” Hyderabad (Oct 28-30th 2005).
 54. Sofia P.K., Rajendra Prasad, **V.K. Vijay** and A.K. Srivastava, “Antimicrobial Activities of Spices” Paper Presented at “International Congress of Chemistry and Environment” held at Indore from 24-26 Dec 2005.
 55. Sofia P.K., Rajendra Prasad, **V.K. Vijay** and A.K. Srivastava, Poster presentation “Assessment of Antibacterial Activity by Hemocytometer Technique” at “Third International Conference on Plants and Environmental Pollution” at Lucknow on 29 Nov-2 Dec 2005.
 56. **Vijay, V.K.**, Ram Chandra & P.M.V. Subbarao, Enhancing Methane Content of Biogas and its Bottling in CNG Cylinders – An Emerging Technology for Rural Entrepreneurship and Sustainable Development, Proceedings of National Conference on Energy Alternatives for Rural Sector, IDC New Delhi 27-28, April 2006 pp 98-103.
 57. **Vijay, V.K.** Ram Chandra and S.S. Kapdi, Methane Separation from Biogas and It’s Bottling, Proceedings of National Conference on Environmental Pollution Control for Sustainable Development, March 27-28, 2006 Engg. College Kota.

58. **V.K. Vijay**, P.M.V. Subbarao, R.R. Gaur & S.S. Kapdi Potential of Utilization of Biogas as Automobile Fuel in India and Technologies for Processing Biogas for Bio-CNG, Proceedings of National workshop on Policy Framework for Biogas Programme for the Next 10 years at IIT Delhi October 5-6, 2007 pp 51-60.
59. Kapdi, S.S., Joshi, D.C. and **Vijay, V.K.**, Potential of Bottled Biogas as Power Source for Rural Industries Development in India, in Proceedings of the International Congress on Renewable Energy 2007, 27-28 November 2007 The Grand, New Delhi, by SESI New Delhi.
60. Kishore Gedam, Rajendra Prasad and **V.K. Vijay**, Socio-Economic Upliftment through Small Scale Milk Processing Units in Rural Areas, National Seminar on Rural Development: Issues and Challenges, 17-18 March 2008, Faculty of Rural Development, School of Continuing Education, IGNOU, New Delhi, pp 15.
61. **Vijay, V.K.**, Amit Agarwal, Ram Chandra, Parchuri M.V. Subbarao, and R.R. Gaur, Producing Biomethane from Biogas: An Improved Automated Water Scrubbing System for Purification, in the Proceedings of “Renewable Energy Asia 2008 – An International Conference & 4th SEE Forum Meeting” Edited Volume, titled “Renewable Energy and Environment for Sustainable Development, Narosa Publishing House, New Delhi Page No. 810-815, 2008.
62. Ram Chandra, **V.K. Vijay**, Parchuri M.V. Subbarao, and R.R. Gaur, Study on Biomethanation of Jatropha and Pongamia Non-Edible Oil Seed Cakes, in the Proceedings of “Renewable Energy Asia 2008 – An International Conference & 4th SEE Forum Meeting” Edited Volume, titled “Renewable Energy and Environment for Sustainable Development, Narosa Publishing House, New Delhi Page No. 817-822, Year 2008.
63. Kapdi, S.S. and **V.K. Vijay**, Performance Evaluation of CO₂ Scrubbing Unit for Production of Methane Enriched Biogas, in the Proceedings of “Renewable Energy Asia 2008 – An International Conference & 4th SEE Forum Meeting” Edited Volume, titled “Renewable Energy and Environment for Sustainable Development, Narosa Publishing House, New Delhi Page No. 868-872, Year 2008.
64. Goyal, P.K. and **V.K. Vijay**, Impact of Climate Change on Tropical Cyclones: Current Issues and Strategies, in the Proceedings of “Renewable Energy Asia 2008 – An International Conference & 4th SEE Forum Meeting” Edited Volume, titled “Renewable Energy and Environment for Sustainable Development, Narosa Publishing House, New Delhi Page No. 1200-1205, New Delhi 2008.
65. **Vijay, V.K.** Biogas as Automobile Fuel- Case Study of Gaushalas in Rajasthan, in Methane to Market – Regional Workshop on Opportunities in Livestock and Food Processing Sector, 3-4 March 2009 Organized by TERI at Indian Habitat Centre Sponsored by USEPA.
66. **Vijay, V.K.** “Biogas Utilization in India as Biofuel- Recent Development in Biogas Purification Technology for Vehicular Use”, in Proceedings of National Workshop on Emerging Horizons in Biofuel Research and Applications 25-27 July 2009 Organized by RBS College, Agra at Hotel Marina, Agra,
67. Rama Chandra Pradhan, Satya Narayan Naik, Venkatesh Meda; Naresh Bhatnagar; **Virendra Kumar Vijay**, Mechanical Expression of Oil from Oilseeds in a Screw Press Oil Expeller, In the proceedings of International Conference on Food Security and Environmental Sustainability, IIT Kharagpur, Dec 17-19, 2009
68. **Vijay VK**, Meena Krishania and Vivek Pathak, Biogas enrichment and bottling Technology, National conference on energy technologies for rural applications, 7th June, 2010 organized by Institute of Technology and Management, Gurgaon
69. Pradhan, R.C., Naik, S.N., Bhatnagar, N., **Vijay, V.K.** 2008. Engineering processing of Jatropha: a potential biofuel crop in India. One-Day Conference at Assam University, Silchar, India (2008) 3rd December.

70. **Vijay V K** , Efficient use of biowastes for biogas production, power generation and purification for vehicular applications, in National Conference on Efficient Energy Management in Urban & Rural Sector, 28-29, April 2011 at IIC, New Delhi organized by CDT Foundation
71. **Vijay VK**, Biogas Technologies for small Farmers, National workshop on “Technology Communication the Way Ahead” organized in collaboration with CRDT & Hindi Cell of IIT Delhi on 27-28th September 2011 at IIT Delhi.
72. **Vijay VK** and MeenaKrishania, Biogas enrichment and bottling technology and it’s status in India, National Conference on Recent developments in Engineering and Technology in Applied Science, 24-25 November2011 at Guru Premsukh Memorial College of Engineering Delhi
73. **Vijay, V K** , Rimika Kapoor, PD Narale and Abhinav Trivedi (2013) Biogas enrichment and bottling for vehicular application-Indian Prospects and Potential, 3rd National Conference on Recent Advances in Bioenergy research , Sardar Swarn Singh National Institute of Renewable Energy , Kapurthala, Nov 22-24, 2013
74. A. Malik, S. K. Prajapati, P. Choudhary, P. Kumar, **V. K. Vijay**. ALgas: A sustainable approach for wastewater treatment coupled Bioenergy generation. “Indo-German Join Scientific Workshop on Water and Wastewater Management for Sustainable Development” held at IIT Delhi, India during January 30-31, 2014
75. S. K. Prajapati, P Kumar, P Choudhary, P Chawla, A. Malik, **VK Vijay**. Biomass and biogas production for microalgae cultivated on rural sector wastewater. Poster presented in Open House I2 Tech 2013 held on 20th April, 2013 at Indian Institute of Technology (IIT) Delhi.
76. S. K. Prajapati, P. Kaushik, P. Choudhary, A. Malik, **V. K. Vijay**, 2012. Role of algae in wastewater treatment and fermentative biogas production. (Oral presentation) in 2nd International Science Congress held during 8-9 December, 2012 at Vrindavan (Mathura), UP, India
77. S. K. Prajapati, A. Malik, **V.K Vijay**. Biogas from algal biomass: a carbon negative energy option. Poster presented in Open House I2 Tech 2012 held on 21st April, 2012 at Indian Institute of Technology (IIT) Delhi.
78. S. K. Prajapati, P. Choudhary, A. Malik, **V. K. Vijay**, 2012. Estimation of biogas production potential of Spirulina sp. NCIM5143 cultivated in wastewater. Poster presented in National Convention on “Current and Emerging Trends in Indian Biogas and Bio-fertilizer Development” held on 16th September, 2012 at IIT Delhi, New Delhi India
79. Mal, Risha, Rajendra Prasad and **V K Vijay** 2014” Thermolectric Power Generator Integrated Cookstove: A sustainable approach of waste heat to energy conversion, International Conference on Advanced Electrical System & Applications, 25 June 2014 Kurnool, Andhra Pradesh.
80. Risha Mal, Rajendra Prasad and **V.K. Vijay**. Renewable Energy from Biomass Cookstoves for Off Grid Rural Areas. In: 2014 International Conference on Renewable Energy (ICRE 2014), Pune, India.
81. Risha Mal, Rajendra Prasad, **V.K. Vijay**, Amit Ranjan Verma, Ratnesh Tiwari. Self – Energy Generating Cookstove. In: 2014 International Conference on Innovative Trends in Applied Physical, Chemical, Mathematical Sciences and Emerging Energy Technology for Sustainable Development, (APCMET-2014), JNU, New Delhi.
82. Risha Mal, Rajendra Prasad, **Virendra Kumar Vijay**, Amit RanjanVerma, Ratnesh Tiwari.International conference on advanced electrical systems and applications 2014, Kurnool, Andhra Pradesh.
83. Risha Mal, Rajendra Prasad, **Virendra Kumar Vijay**, Amit Ranjanverma, Ratnesh Tiwari. 2nd International Conference On “Bioenergy, Environment & Sustainable Technologies - Best2015“January 28-31, 2015, Tiruvannamalai.

84. Risha Mal, Rajendra Prasad, **Virendra Kumar Vijay**, Amit RanjanVerma, Ratnesh Tiwari. 2nd International Conference On “Bioenergy, Environment & Sustainable Technologies - Best2015” January 28-31, 2015, Tiruvannamalai.

International:

1. **Vijay. V.K.**, Bhatnagar, S.S., Mathur, A.N. and Rathore, N.S. (1989). Design of Packed Bed Type Biogas Scrubbing System for Engine Application, Proceedings of Condensed Papers in 9th Miami International Congress in Energy and Environment, USA, Vol.2 pp. 275.
2. Bhatnagar, S.S., **Vijay, V.K.** and Mathur, A.N. (1989) Biomass Based Sterling Engine System-Scope of Improvement. Proceedings of Condensed Papers, 9th Miami International Congress on Energy and Environment. USA Vol. 2. pp. 276.
3. **Vijay V.K.**, Hitawala, A. and Agrawal J.J. (1999) A Case Study of Power Generation Potential from MSW in Udaipur City of India, Proceedings of 15th International Conference on Solid Waste management, Philadelphia, USA December 12-15, 1999.
4. **Vijay V.K.**, Kumawat, Y. and Batra R.S. (2000) Lake Eco- System Generation Through Proper Management of Solid Waste in Udaipur City in India, 16th International Conference on Solid Waste Technology & Management, Dec 10-13, 2000, Philadelphia, USA.
5. Risha Mal, Rajendra Prasad, **Virendra Kumar Vijay**, Amit RanjanVerma. Performance evaluation of thermoelectric generator on integration with clean forced draft biomass cookstove. Computer Science Procedia, Volume 52, 2015, Pages 723-729. The 5th International Conference on Sustainable Energy Information Technology (SEIT-2015), London, June 2015.
6. **Vijay VK**, Kapoor R, Narale P, & Trivedi, A. (2015) Biogas Production, Power Generation, Upgradation and Bottling for Vehicular Application. In Energy Science and Technology (11). Studium Press LLC, USA
7. **Vijay VK**, Kapoor R, Trivedi A, Narale P. Biogas Upgrading and Bottling Technology for Vehicular and Cooking Applications. In Management of Natural Resources in a Changing Environment 2015 (pp. 135-153). Springer International Publishing.
8. Presented an invited paper “Decentralized biogas enrichment and bottling technology for cooking and vehicular application in India for energy security” in International Conference – Progress in Biomethane Mobility at Schwabisch Hall, Germany during Oct 27-28, 2015
9. Trivedi A, **Vijay VK**, Chandra R. Liquid Hot Water Pretreatment of Paddy Straw for Enhanced Biomethanation. In Proceedings of the First International Conference on Recent Advances in Bioenergy Research 2016 (pp. 15-22). Springer India.
10. Verma AR, Prasad R, **Vijay VK**, Tiwari R. Modifications in Improved Cookstove for Efficient Design. In Proceedings of the First International Conference on Recent Advances in Bioenergy Research 2016 (pp. 245-253). Springer India.
11. Mal R, Prasad R, **Vijay VK**, Verma AR. The design, development and performance evaluation of thermoelectric generator (TEG) integrated forced draft biomass cookstove. Procedia Computer Science. 2015 Dec 31;52:723-9.
12. Mal R, Prasad R, **Vijay VK**. Design and testing of thermoelectric generator embedded clean forced draft biomass cookstove. In Environment and Electrical Engineering (EEEIC), 2015 IEEE 15th International Conference on 2015 Jun 10 (pp. 95-100). IEEE.
13. Chandra, R., Vijay VK., Subbarao, P. M. V., Nagpal, S., Trivedi, A., Jha, B., Vijay, V. (2016) Paddy straw-based power generation from biogas: Fazilka District in Punjab Leading the Way!. Energy Future, 4(4), 52–56
14. **Vijay VK**, Chandra, R., Vijay, V., Jha, B., Trivedi, A. (2016). Kurukshetra: A Journal on Rural Development, 64(7), 42–44

15. Risha Mal, Rajendra Prasad, **V.K. Vijay**. Effective Utilization of Cook Stoves for Electricity Generation using TEG. In: Proceedings of 2013 Conference in Engineers in Technical and Humanitarian Opportunities of Service (ETHOS), Kirkland, Washinton DC.
16. Risha Mal, Rajendra Prasad, V.K. Vijay, Amit Ranjan Verma, Ratnesh Tiwari. Self-sustaining energy cook stove for rural Indian areas. In: Proceedings of 2014 Conference in Engineers in Technical and Humanitarian Opportunities of Service (ETHOS), Kirkland, Washinton DC.
17. Amit Ranjan Verma, Rajendra Prasad, **V. K. Vijay**, Ratnesh Tiwari , Risha Mal. Modifications in traditional Indian cookstove and improved cookstove for efficient design. In: Proceedings of 2014 Conference in Engineers in Technical and Humanitarian Opportunities of Service (ETHOS), Kirkland, Washinton DC.
18. Rajendra Prasad, Ratnesh Tiwari, Amit Ranjan Verma, Risha Mal, **V.K. Vijay**. Performance Evaluation of Biomass Cookstoves: Bureau of Indian Standard (BIS) Vs. WBT 4.2.2 Test Protocols. In: Proceedings of 2014 Conference in Engineers in Technical and Humanitarian Opportunities of Service (ETHOS), Kirkland, Washinton DC.
19. **Vijay V K**, Biogas Enrichment and bottling for cleaner and efficient application in transport vehicles – An Indian Case, Presented in R'09 Twin World Congress (Resource Management and Technology for material and Energy Efficiency) Davos, Switzerland 14-16, September 2009.
20. **Vijay, V K** , Development of Biogas Purification and Bottling for Use un Vehicles – An Indian Case, Oral presentation in Session Biogas and Biomass Systems (O-Bm-10-3), in Renewable Energy – 2010 Int. Conference and Exhibition, Yokohama, Japan June 27- July2, 2010
21. Gaur RR, and **Vijay V K** Commercial Utilization of biogas through upgradation and bottling to provide green fuel for rural transportation and agro-industrial application in 3rd Int Conference on Addressing Climate Change for Sustainable Development through Up-Scaling Renewable Energy Technologies, Kathmandu Nepal 12-14 October, 2011
22. Risha Mal, Rajendra Prasad, **V K Vijay** ,”Effective utilization of Cook Stoves for Electricity Generation using TEG” , Engineers in Technical and Humanitarian Opportunities and Service Jan 25th-27th 2013, Kirkland, Washington, D.C
23. **Vijay, VK** Policy, Potential and Status of Renewable Energy in India to meet climate change agenda, Global COE workshop on New Energy Initiatives, 1.7.2010 ,Yakohama Japan
24. Pradhan, R.C., Naik S.N., Bhatnagar N., Subhlaxmi, **Vijay, V.K.**, Some Physical Properties of Jatropha Seed (Jatropha Curcus L) : in Indian Context, Proceedings of Int. Conference on Energy Security and Climate Change: Issues, Strategies and Options (ESCC2008) AIT Bangkok, Thailand, Aug 6-8, 2008.
25. **Vijay V.K.**, Study on Biomethanation of Jatropha and Pongamia Non Edible Oil Seed Cakes by Refinery Technology, 3rd Workshop for Studies on Extracting Resources from Biowastes by Refinery Technology at Nagoya University Japan, 23-24th Feb 2009.
26. **Vijay, V.K.**, Mathur, Meeta, (2001) Existing Hospital Waste Management Practices and Scope of their Eco-friendly Treatment in Udaipur City, Paper Presented at 17th International Conference on Solid Waste technology & Management, Philadelphia, USA, October 21-24.
27. Mathur, A.N. and **Vijay, V.K.**, (2001) Impact of Waste to Energy Program in India in Mitigating Green House Gases Emission, Paper Presented at 17th International Conference on Solid Waste technology & Management, Philadelphia, USA, October 21-24.
28. **Vijay V.K.**, Sanjay Singh and Rajendra Prasad (2003) System Design for Optimum Energy Recovery from MSW through Anaerobic Digestion, Proceedings of 18th International Conference on Solid Waste Technologies and Management, Philadelphia, USA, 23-26 March, 2003 pp 1007 to 1014 Ed. Ronald L. Mersky.

29. **Vijay, V.K.**, A.K.S. Bhaduria and Rajendra Prasad (2003) Traditional System of Water Conservation and Rain Water Harvesting in Arid and Semi Arid Region of Rajasthan : Lessons to be Learnt, Proc. of the First International Symposium on South East Asian Water Environment, October 23-25, 2003 Asian Institute of Technology, Bangkok pp 204-211.
30. Bhaduria, A.K.S., **Vijay, V.K.** and Rajendra Prasad (2003) Case Study of Sustainable Traditional Rainwater Harvesting of Jodhpur and Jaiselmer (Arid regions of Rajasthan India), Proc. of Poster Presentations in the First International Symposium on South East Asian Water Environment, October 23-25, 2003 Asian Institute of Technology, Bangkok pp 27-30.
31. **Vijay, V.K.** and Rajendra Prasad (2004) Rural Industries Development using Biomass Resources : A Sustainable Approach, Poster presentation (V 10.21) in the 2nd World Conference and Technology Exhibition on Biomass for Energy, Industry and Climate Protection. May 10-14, 2004 Rome, Italy.
32. Kapdi, S.S., **V.K. Vijay**, Rajesh S.K., and Rajendra Prasad (2004) Biogas Upgradation and Utilization as Vehicle Fuel, Proceedings of the Joint Int. Conference on “Sustainable Energy and Environment” 1-3 December, Hua Hin, Thailand, JGSEE pp 206-209.
33. **Vijay, V.K.** “Energy Scenario in India – Country Paper” in the International Conference on Sustainable Energy and Environment: Technology and Policy Innovations 21-23, November 2006 at King Monkut’s University of Technology Thonburi, JGSEE, Bangkok. **Vijay, V.K.**, Ram Chandra & P.M.V. Subbarao and S.S. Kapdi Biogas Purification and Bottling into CNG Cylinders: Producing Bio-CNG from Biomass for Rural Automotive Applications in International Conference on Sustainable Energy and Environment: Technology and Policy Innovations 21-23, November 2006 at King Monkut’s University of Technology Thonburi, JGSEE, Bangkok pp 344-349.
35. Ram Chandra, **V.K. Vijay** & P.M.V. Subbarao, A Study on Biogas Generation from Non Edible Oil Seed Cakes: Potential and Prospects in India, International Conference on Sustainable Energy and Environment: Technology and Policy Innovations 21-23, November 2006 at King Monkut’s University of Technology Thonburi, JGSEE, Bangkok pp 677-681.
36. **Vijay, V.K.**, Biogas Utilization and Prospects as Renewable Energy in India, the 3rd SEE Forum: Asia pacific Academic Network for Sustainable Energy and Environment, 21-23 November 2007, Pattaya, Thailand, pp 108-111.
37. **Vijay, V.K.**, Biogas Refining for Production of Biomethane and Its Bottling for Automatic Applications and Holistic Development, Proceedings of International Symposium on Eco-Topia Science 07, Nov 23-25, 2007 Nagoya University Japan, pp 623-628.
38. **Vijay, V.K.**, Biogas Energy for Country Side Development in India, Proceedings of 1st Int. Symposium on Aqua Science, Water Resource and Innovation Development of Country Side, Nov 26-30, 2007 Sakuraza, Sakawa, Kochi Japan pp 91-96.
39. **Vijay V.K.**, Biogas Utilization and Prospectus as Renewable Energy, 25.5.2008 at ASEAN COST +3 New Energy Forum for Sustainable Environment, Kyoto University, Japan pp 11-13.

BOOKS AUTHORED by V.K. Vijay

S. No.	Title	Publisher	Year	Co- authors with V K Vijay
1	Biogas Vigyan Avam Upyog in Hindi pp 120 (Biogas Science and Use) ISBN 81-85167-62-1	Himanshu Publications Udaipur * Delhi	1992	A.N. Mathur and K.C. Khandelwal
2	Paryavaran Siksha :In Hindi pp 190 (Environmental Education) ISBN 81-85167-90-7	Himanshu Publications Udaipur * Delhi	1993	A.N. Mathur and N. S. Rathore
3	Paryavaran Bodh (Environmental Awareness) pp 156	Himanshu Publications Udaipur * Delhi	1994	A.N. Mathur and N. S. Rathore
4	Urja, Paristhitiki, avam Paryavaran (Energy, Ecology & Environment) ISBN 81-86231-08-0	Himanshu Publications Udaipur * Delhi	1995	A.N. Mathur and N. S. Rathore
5	Biogas Prodhogyiki – Upyogavam Paryavaran Suraksha in Hindi	Himanshu Publications Udaipur * Delhi	2000	A.N. Mathur and K.C. Khandelwa
6	Practical Manual on Renewable Energy Sources in English	College of Technology & Engineering, Udaipur	2000	A.N. Mathur
7	Renewable Energy and Environment for Sustainable Development pages-1220 (Edited Volume) ISBN 978-81-7319-993-6	Narosa Publishing House New Delhi	2008	H.P. Garg
8	Biogas Production, Upgradation and Slurry Management ISBN 978-81-8487-136-4	Narosa Publishing House New Delhi	2012	-

BOOKS EDITED:

1. Smiriti Manjusha – 1990 – Managing Editor of Yearly Book Published by Akhil Bhartiya Vidhyarthi Parishad, Rajasthan State.
2. Tech-view -1990 – Editor of Silver Jubilee Issue 1990 of the college Magazine, college of Technology and Agricultural Engineering, Udaipur (Raj.)
3. Tech-View -1993 – College Magazine, CTAE, Udaipur.
4. Tech-View 1997-98 College Magazine, CTAE Udaipur
5. Proceedings of National Conference on Commercialization Aspects of Renewable Energy Sources (CARES), April 28-29, 2000
6. Proceedings of National workshop on Biogas Policy Framework for next 10 years October 5-6, 2006 IIT Delhi

Details of Sponsored Projects Handled by Dr. V.K. Vijay

S. No	Title	Funding Agency	Amount (Rs in Lakh)	Duration	PI/Co-PI If any
1.	Development of a Biogas Scrubber for Removal of CO ₂	ICAR	3.00	1989-91	A.N. Mathur (PI)
2.	Study and Analysis on Biogas from Kitchen Waste	DNES	1.00	1992	N. Ali (PI) A.N. Mathur
3.	Associated : Technical Backup – Rural Entrepreneurship Development Program	NSTEDB (DST)	17.00	1996-97	Rajendra Prasad (PI)
4.	Development of Renewable Power Lab (MODROB)	AICTE	9.00	1999	A.N. Mathur (Co-PI)
5.	AICTE Career Award	AICTE	10.00	2000-2003	
6.	Evaluation of Green House for Local Medicinal Plant in Tribal Area of Udaipur Region	ICAR	7.88	2001-2004	S. Kothari (PI) N.S. Rathore
7.	Development of Animal Driven Prime Movers	MGIRI, KVIC	3.00	2002-03	
8.	Enrichment and Bottling of Biogas – Feasibility Study	MGIRI, KVIC	3.50	2002-04	
9.	Design and Development of Bullock Drawn Electricity Generator (RP01541)	MHRD	7.00	2003-2005	
10	Development of a 20 kW Entrained Flow Gasifier for Powdery Biomass for use with a 100 % Producer Gas Filled SI Engine (RP01659) (MNES file No. 203/01/27/2003-BM) dated 30.3.2004	MNES	8.74	2004-2005 (18 months)	M.R. Ravi (PI)
11	Demonstration of Biogas Enrichment and Power Generation for Energy Self Sufficiency for Gaushalas and Dairies (RP01795)	DST	11.89	2005-2006	P.M.V. Subbarao (Co-PI)
12	Treatment of Pulp and Paper Mill Effluent by Constructed Wet Land Technology (ORP01676)	SERC, women scientist scheme project	12.42	26.5.2004 3 years	Neetu Rani- Student Vivek (Co-PI)
13	Field Demo and Performance Evaluation on Biogas Enrichment and Bottling Technology for Vehicular Use (RP01931)	PCRA	33.62	27.2.2007 2 years	P.M.V. Subbarao (Co-PI)
14	Pilot Level Demo of Biogas Enrichment and Bottling System for Rural and Automotive Applications (RP01941)	DST	5.00 (IITD) 9.60 Field Agency	4 th April 2007 1 year	P.M.V. Subbarao (Co-PI)

15	Indian Science and Technology Heritage (RP1990)	Bhartiya Dharohar (NGO)	2.00	24 th July 2007 1 year	Rajendra Prasad (PI) V.K. Vijay (Co-PI)
16	Development of Vortex Tube based Biogas Upgradation System (RP02032)	MNRE	30.00	2 years 21.11.2007	P.M.V. Subbarao (PI) V.K. Vijay (Co-PI) P.L. Dhar (Co-PI)
17	Development of Field Worthy Pilot Scale Models of Water Absorption Based Biogas Upgradation System for Production of Natural Gas (RP02041)	MNRE	12.00	1 year 17.12.2007	V.K. Vijay (Co-PI) P.M.V. Subbarao (Co-PI) R.R. Gaur (Co-PI)
18	Biogas Development and Training Centre (RP02048)	MNRE	23.60	5 years 27.12.2007 to till date	V.K. Vijay (PI) P.M.V. Subbarao (Co-PI) R.R. Gaur (Co-PI) SangeetaKohli (Co-PI) Anushree Malik (Co-PI)
19	Running of Newly Developed Institute MGIRI at Wardha (MI00430)	KVIC	2,19,00,000	12 months 01.01.2008 to 31.12.2008	V.K. Vijay (PI)
20	Development of Pilot Level Demo of Biogas Enrichment and Bottling System for Rural Automobile Applications (RP02181) in collaboration of DST, Rajasthan	DST	1,14,59,840 IIT- 16,59,840 Field Agencies - 96,00,000 DST Jaipur- 2,00,000	2 years 01.01.2009	V.K. Vijay (PI) P.M.V. Subbarao (Co-PI)
21	Rural Technology Action Group – IIT Delhi (RP02202)	Principal Scientific Advisor, Govt. of India	1,32,04,000	3 years From 25.02.2009	Rajendra Prasad (PI) V.K. Vijay (Co-PI)
22	Pilot studies on optimization of Biomethanation process parameters for biogas production from Jatropha and Pongamia oil seed cakes (RP 02271)	DST	14,40,000	2 years from 25.9.09	V.K.Vijay (PI) PMV Subbarao (CO-PI)
23	Technology Demonstration of Biogas Enrichment and Bottling system for Rural Energy Security and Automobile Application in collaboration with Shri Vallabh Gaushala Junagarh, Gujarat (RP02287)	DST	1151040	2 years from 18.11.2009	Dr V.K.Vijay (PI) CO-PI Prof Rajendra Prasad
24	EU-Consortium research project under call FP7-Energy-2009-1	European Commission,	Total Euro 4,649,952 IIT Delhi	3 years from	PI Dr. V.K.Vijay

	Valorisation of food waste to biogas (VALORGAS) Grant Agreement No. 241334	Research Directorate General, Brussels	Euro 2,44,712	March 2010	
25	Comparative Evaluations of Performance and Mass Emissions of an Automotive Passenger Vehicle fuelled with the Enriched Biogas using Field Trial Tests (RP 2470)	MNRE File No 11-13/2010(pt-f)/BE dated 25.3.2011	18,09,000	2 years From 20.4.2011	PI: Prof. V. K. Vijay Co-PI- P.M.V. Subbarao, K. A. Subramanyam
26	Biogas Slurry handling and Bio-manure Management	MNRE No 19-11/2010/- R&D –BE dated 25.3.2011	16,91,000	2 years	PI: Satyawati Sharma Co-PI V. K. Vijay Anushree Malik
27	Design and Development of Mobile Unit for Biogas Enrichment (RP 02539)	MNRE File No 19-6/2011-R&D/BE dated 30.11.2011	68,87,400	1.75 years	PI: V K Vijay Co-PI PMV Subbarao
28	Integrated Process Development for Biogas production from waste water grown algal biomass (a second generation biofuel feed stock) and testing of algae mediated biogas conditioning (RP 02537)	MNRE 19-18/2011-R&D/BE dated 18.11.2011	62,42,800	3 years	PI- Anushree Malik Co-PI VK Vijay Satyawati Sharma TR Shree Krishnan
29	Development of clean Cook Stove with self-sustaining power generation and pilot demonstration (RP 02852)	Container corporation of India Ltd New Delhi since 2.1.2014 for one year	27,00,000	1 year	PI Prof V K Vijay Co-PI- Prof Rajendra Prasad
30	Improvement of existing IMPMUD STOVE	Tata Energy and Resource Institute, New Delhi Since 26.12.13	19,00,000	1 year 26.12.2014	PI Prof V K Vijay Co-PI- Prof Rajendra Prasad
31	Enhancing capacity of regional testing and knowledge center	Global Alliance USA	11298400	2 years 7.1.2015	PI- V K Vijay Co-PI Prof V K Vijay
32	Demonstration and Adaptive Research of Biogas Purification & Bottling Technology for Vehicular Application	Department of Science & Technology (DST) India	11298400	2 years 01-04-2016	PI Prof V K Vijay Co-PI- Prof PMV Subbarao & Dr. Ram Chandra
33	Development of Suitable Pre-treatment System for Paddy Straw Disintegration for Biogas Generation Leading Towards Commercialization of Technology	Ministry of New and Renewable Energy, India	4977440.00	2 years 15-02-2016	PI Prof V K Vijay Co-PI- Prof PMV Subbarao & Dr. Ram Chandra

34	Direct DBT Energy Bioscience Overseas Fellow to Dr. Ram Chandra	Department of Biotechnology, Ministry of Sc.& Tech, India	7921291.0 0	21-01-2015 to 20-01-2020	PI Prof V K Vijay
35	IREDA Professor Chair to Prof. V. K. Vijay, Centre for Rural Development and Technology	Industrial Research & Development, IIT Delhi, India	1200000.0 0	10-11-2015 to 09-11-2018	PI Prof V K Vijay
36	Development of Suitable Pre-treatment System for Paddy Straw Disintegration for Biogas Generation Leading Towards Commercialization of Technology	Ministry of New and Renewable Energy, India	4977440.0 0	15-02-2016 to 14-02-2018	PI Prof V K Vijay
37	Unnat Bharat Abhiyan	Ministry of Human Resource Development India	10000000 00.00	01-04-2016 to 31-03-2019	PI Prof V K Vijay
38	From Waste Water to Bioenergy: A Microalgae Biorefinery Approach in Indian and Brazilian Scenario	Department of Biotechnology, GOI, Brazil	10416000. 00	31-05-2016 to 30-05-2020	Co-PI- Prof V K Vijay
39	Novel bio-harvesting for Coupling Algal Wastewater Treatment and Biofuel Production	Science and Engineering Research Board,(DST) India	4745000.0 0	13-11-2014 to 12-11-2017	Co-PI- Prof V K Vijay
40	Bio-energy: Technology and Business Solutions for the UK and India	International Division, Dept. of Science & Technology, United Kingdom	72270000. 00	01-07-2009 to 31-12-2016	Co-PI- Prof V K Vijay
41	Development of low pressure–high volume biomethane storage cylinder for transportation of bottled biogas for cooking and automotive fuel applications	Department of Science &Technology, Government of India	6.248 million	01-07-2017 to 01-07-2020, 3 Years	PI Prof V K Vijay Co-PI- Prof PMV Subbarao & Dr. Ram Chandra
42	Unnat Bharat Abhiyan (UBA) Phase 2	MHRD	83080000 0	21 st Feb 2018 to 20 th Feb 2021	PI Prof. V K Vijay
43	Inspire faculty award to Dr. Pooja Ghosh under supervision of Prof. V. K. Vijay	DST, India	9500000	9/11/16 to 8/11/21	PI Prof. V K Vijay

44	Demonstration and adaptive research of biogas purification and bottling technology for vehicular applications	DST, India	11298400	1/4/16 to 30/9/18	PI Prof. V K Vijay
45	MI to operate DDF at RDAT	IIT, Delhi	23890485	15/6/09 to 14/6/19	PI Prof. V K Vijay
46	Performance Evaluation of Electrocoagulation based Sewage and wastewater Treatment system and Aciequacy assessment sewage treatment plants of various capacities	M/s. Confident Engineering India Pvt Ltd., Coimbatore, India	3600000	6/2/18 to 5/2/19	Co- PI Prof. V K Vijay
47	Investigation and research in Air Purifier Technology using Ionization of atmosphere	Omayur Technologies Pvt. Ltd, India	750000	1/1/18 to 30/6/18	Co- PI Prof. V K Vijay
48	Local Treatment of Urban Sewage Streams for healthy Reuse (LOTUS) (INDO-DUTCH Joint Project)	Department of Biotechnology, Ministry of Sc. & Tech., Holland	12729800 0	1/4/17 to 31/3/20	Co- PI Prof. V K Vijay
49	Environmental Inspection of 12 Grossly Polluting Industries in Ganga Basin	Central Pollution Control Board, New Delhi, India	789830	30/03/17 to 30/6/18	Co- PI Prof. V K Vijay
50	Integrated nutrition, education and environmental interventions through networks of schools and anganwadis in India	University college, London	49842 GBP	1/4/17 to 31/7/2019	Co- PI Prof. V K Vijay
51	Development and Impact Assessment of TEG cookstoves in rural communities for sustainable environment	IIT Delhi, UCL London	5,00000	07/12/2020 – 06/12/2020	PI- Prof V K Vijay
52	Hydrogenotrophic Anaerobic Biotechnological System for Enrichment of Biogas (HABSEB) Technology for Power and Vehicular Fuel Applications	Department of Science & Technology	4242392.0 0	25-02-2021 to 24-02-2024	Co- PI Prof. V K Vijay
53	Solid Waste Management under Delhi Research Implementation and Innovation (DRIIV)	Office of the PSA, GoI, India	11976000. 00	07-12-2020 to 06-12-2023	Co- PI Prof. V K Vijay
54	Design and Development of an efficient biomass cookstove for simultaneous production of clean fuel and its utilization in cookstove	Department of Science & Technology	7677760.0 0	15-07-2020 to 14-07-2022	Co- PI Prof. V K Vijay
55	Livelihood generation through technology intervention for	Department of Science & Technology	7646503.0 0	28-08-2019 to	Co- PI Prof. V K Vijay

	sustainable harnessing of neem fruit and hemp Project number			27-08-2022	
--	--	--	--	------------	--

Details of Consultancy Projects Handled by Dr. V.K. Vijay

S. No.	Title	CI/Co – CI If any	Funding Agency	Amount (Rs.)	Duration
1.	Testing of Organic Food Products (CW06370)	V.K. Vijay (CI) S.N. Naik (Co-CI) Rajendra Prasad (Co-CI)	Bharat Bio Products	38,500	3 months July-Oct 2003
2.	Revamping of JBCRI Co-Convener in Energy Infrastructure group (CW05411)	Rajendra Prasad (CI) V.K. Vijay (Co-CI)	KVIC	50,000	2002-2003
3.	Techno- Economic Feasibility Study for implementation of PURA in Chhattisgarh (CW07818) dated 23.8.2005	V.K. Vijay (CI) Rajendra Prasad (Co-CI)	HUDCO	2,67,000	Aug- Nov. 2005
4.	Integrated Cycle of Cow – Project Report on Rural Self Employment with Partnership of Biogas Energy (CW07838) dated 29.8.2005	V.K. Vijay (CI)	Love 4 Cow Trust	25,000	2 months
5.	Feasibility on Enrichment and Utilization of Biogas From Manure Waste Treatment at Gokul Nagar Of Municipal Corporation Bilaspur (CW08879) dated 21.12.2006	V.K. Vijay (CI) R.R. Gaur (Co-CI) P.M.V. Subbarao (Co-CI)	Municipal Corporation Bilaspur	50,000	5 months
6.	Feasibility Report of Nehru Nagar Biogas plant for biogas Upgradation & Utilization of Nagar Palik Nigam, Bhilai (CW08882) dated 21.12.2006	V.K. Vijay (CI) R.R. Gaur (Co-CI) P.M.V. Subbarao (Co-CI) T.R. Sreekrishnan (Co-CI)	Nagar Palika Nigam Bhilai	30000	3 months
7	Feasibility Report on Fruit, Vegetable Waste Treatment & Cow dung for Biogas	V.K. Vijay (CI)	Municipal Corporation Raigarh	49875	5 months

	Production And Enrichment Technology at Gokul Nagar, Municipal Corporation, Raigarh (CW08975) dated 6.02.2007	R.R. Gaur (Co-CI) P.M.V. Subbarao (Co-CI)			
8.	Examination of Specification and Bids for TEQIP – Purchase of Variable Compression Engine Test Bed Equipment at College of Technology, GBPUAT, Pantnagar. Oct. 2007 (CW09588)	P.M.V. Subbarao (CI) V.K. Vijay (Co-CI)	State Project Facilitation Unit	30,000/-	One month
9	Evaluation of AMT Membrane Modules for Biogas Purification in Context to Application in India FT/03/1401/2008/1368 dated 5.3.2008	V.K. Vijay (CI) T.R. Sreekrishnan (Co-CI)	Applied Membrane Technology Inc. MN, USA	10,00,000 /-	One year 5.3.2008
10	Running of Newly Developed Institute MGIRI at Wardha (CW08546)	Rajendra Prasad (CI) P.L. Dhar (Co-CI) R.R. Gaur (Co-CI) V.K. Vijay (Co-CI) V. Sheshadri (Co-CI)	KVIC	77,000,00	1.1.2008 One year
11.	Evaluation of DPR of Biogas Project at Village Mohana, Distt. Sonapat for Enrichment and Bottling	V.K. Vijay (CI)	M/S Hindustan Dairy Farm & Biogas Organic Fertilizer Plant, Delhi	65,000	2.2.2009 Three months
12	Effect of Methaplus on production of biogas under representative Indian Conditions (FT/03/1463/2009 in collaboration Him Renewable Energy & Env. Consultant, Dharmshala (HP)	Dr V.K. Vijay (CI)	M/s DSM Anti-invectives India Ltd , Gurgaon	6,90,000 + 2,50,000	19.08.2009 6 months
13	Animal dung/alternate feed material based captive power generation in decentralized mode and biogas enrichment and bottling for rural	Dr V.K. Vijay (CI)	Dept. of Science and Tech, Govt. of Rajasthan	2,00,000	4.12.2009 One year

	applications at Shri Krishna Gosala, Jaleda, District Baran, Rajasthan FT/03/1488/2009/1276 dated 4.12.2009				
14	One-day Training Programme on Capacity Building for Adoption of Biogas Technology on 29.3.2011 at IIT Delhi sponsored by an (FT/06/449/2011/3050 dated 8.3.11	CI -Dr Anushree Co-CI Dr VK Vijay	NGO FORCE New Delhi	70,000	One day 29.3.2011
15	Design and development of high capacity biogas enrichment system using water scrubbing method FT/05/200/2011/5347 dated 12.12.2011	CI-PMV Subbarao Co- p I VK Vijay	Nandi Energy Systems Pvt Ltd Andhra Pradesh	11,50,000	One year 12.12.2011
16	Project Management Cell (BGFP projects) MNRE FT/11/059/2011/3006	CI	IREDA, MNRE GOI	6% of the total project support of MNRE on BGFP projects	24.2.2011 And FT/1/059/2011/0283 dated 14.2.2013
17	Technical and field performance Evaluation of Flexi Biogas Plants FT/03/1682/2013/1053 dated 13.6.2013	CI	Int. Fund for Agri Deveopment , Rome Italy	US\$ 20000	13.6.2013 for 9 months Upto 15.3.2014
18	Design and Development of Biogas enrichment and bottling system of 100 cum/hr	CI- V k Vijay Co-CI PMV Subbarao	Mahindra & Mahindra Mahindra Research Valley, Chennai	11,23,600	Nine months from 3.7.2014
19	Scientific study of performance of improved biomass cook stoves under actual use conditions and to develop manual for the same	CI- V k Vijay Co-CI Prof Rajendra Prasad	GIZ, GmbH Germany	Euro 1,43,532.48 Rs 1,15,87,377	4 months from 28.7.2014
20	Biogas production and upgradation technology Training module to Santa Maria university Peru	CI- V k Vijay Co-CI Prof PMV Subbarao & Dr. Ram Chandra	Santa Maria university Peru, South America	USD 7000	5 Days from 23/5/2016

21	Technical Evaluation and Environment Impact assessment of Bio-CNG cum Bio-fertilizer Plant Establishment at Naurangabad, Haridwar, Uttarakhand	CI- V K Vijay	ONGC	11,00,000	March, 2019 to June 2019
----	--	---------------	------	-----------	--------------------------

Invited Lecture Delivered:

1. Participated in “Regional workshop on Emerging Technologies to respond to climate change” Organised by APCTT, China on 14th Sept, 2021.
2. Lecture delivered at Lingaya Institute of Management and Technology, Nachauli, Old Faridabad, Faridabad- in AICTE Sponsored Induction Training Programme – Role of Technical Institutions in Rural Development on 23.12.2003 time 1.30 to 4.00 pm.
3. Biogas Bottling for Rural Entrepreneurship Development, Utthan- 2005, Seminar on Sustainable Development – Technology Initiatives for the Development of Rural Masses, Feb 18-20, 2005 Organized by CTSD, Faridabad.
4. Traditional System of Water Conservation and Rain Water Harvesting in Arid and Semi-Arid Region of Rajasthan: Lessons to be Learnt, Proc. of the first International Symposium on South East Asian Water Environment, October 23-25, 2003 Asian Institute of Technology, Bangkok pp 204-211.
5. Prakriti 2005 – National Conference cum Exhibition, Role of Science and Technology for Rural Economic Self Reliance, 9-11 December, 2005 Noida.
6. Enrichment of Biogas and Bottling Technology, in Staff Orientation Training on Biomanure, Multi-Disciplinary Training Centre, KVIC, Gandhi Darshan, Rajghat, New Delhi- 21.9.2006.
7. Integrated Resource Management- Bio Energy Strategy 17.11.2006 at Indian International Centre in National Seminar on Integrated Energy Management: Resource Perspective and Management Prospects by Public Dialogue Institute, New Delhi.
8. National Biogas Manure Management Programme - An Overview for Organic Farming, 11.12.2006 in QIP Short Term Course on Biotechnology for Portentous food, Cattle Feed and Biofertilizer Production at IIT Delhi.
9. Present Scenario of Biodiesel in India, 17 March 2007 in Workshop on Biodiesel at Advance Institute of Technology and Management, Palwal, Haryana organized by Centre of Technology for Sustainable Development under the Aegis of Adarsh Samaj Sahyog Samiti Faridabad.
10. Biogas Upgradation and Bottling for Rural Entrepreneurship, in UMANG – Programme on Rural Technologies-Changing Lives, by Dept. of Management Studies, IIT Roorkee on 18 March 2007.
11. Purification of Biogas and Bottling Technology, in Staff Orientation Training of Biotechnology at Zonal Pilot Centre, MDTC, Gandhi Darshan, Rajghat, KVIC on 8 January, 2008.
12. Entrepreneurship Avenues in Purification of Biogas and Bottling Technology, in Staff Orientation Training of Biotechnology at Zonal Pilot Centre, MDTC, Gandhi Darshan, Rajghat, KVIC on 21 January, 2008.
13. Biogas Technology in India and Its Potential for Vehicular Use, 22 February, 2008 at 10.30 am in Short Term Course on Utilization of Solar Energy and Its Application (Feb 8- 22, 2008), CEs, IIT Delhi.
14. Keynote Address in 4th Technical Session on Advanced Materials, Processes and Automation, in National Conference on Engineering Technology for Sustainable Development: Opportunities and Challenges 25th March 2008 at Ideal Institute of Technology, Ghaziabad.

15. Biogas Utilization and Prospectus as Renewable Energy, 25.5.2007 at ASEAN COST +3 New Energy Forums for Sustainable Environment, Kyoto University, Japan.
16. Providing Urban Amenities to Rural Areas, School of Mechanical Engineering, SASTRA University, Thanjavur (TN) 24th October 2008 at 3.30 pm Venue: Vishwakarma Joth Auditorium, SASTRA University.
17. Biogas and Cow for Rural Reconstruction – Making Goshalas Self Reliant, 28th December, 2008 Prashanti Kutiram, Swami Vivekanand Yoga Anusandhan Sansthan, Bangalore.
18. Biogas Status in India and Enrichment and Bottling Technology in Business Meet on “Identification and Removal of Barriers to Biomass Power Generation” Organized by Bhartiya Vidhya Peeth’s College of Engineering, New Delhi Date: 4th February, 2009.
19. Biogas Purification Technology, Workshop on “Demonstration of Integrated Technology Package on Medium Size Biogas Fertilizer Plant for Generation, Purification/Enrichment, Bottling and Piped Distribution of Biogas Towards Harnessing Near Total Potential of Suitable Biomass in Rural Areas” 11-12 Feb 2009 at Hotel Surya Palace, Vadodara, Organized by MNRE, GoI and GAIC Gujarat.
20. Development in Biogas in India and biogas Upgradation and Its Bottling for Vehicles, International Conference on Gaseous Fuels, 11-13 Feb 2009 at Hotel Marriot Resort, Goa Organized by Oil Industry Safety Directorate, Ministry of Petroleum, Govt. of India.
21. Methane to Market- Regional Workshop on Opportunity in Live Stock & Food Processing Industry Sector “ Biogas Enrichment and Bottling for Vehicular Use – A Case Study of Goshalas in Rajasthan” 3-4 March, 2009 Organized by TERI, New Delhi Sponsored by USEPA - 4th March 2009 at 11.30 am.
22. PoA CDM: A Tool for GHG mitigation by Renewable Energy Technologies in Rural Areas”. Biogas Enrichment and Bottling for Vehicular Use – A Case Study of Gaushalas in Rajasthan the Event is being Organized by Deloitte Touche Tohmatsu India Private Limited (DTTIPL) and Indian Institute of Technology-Delhi (IITD) on 20th March 2009, at Hotel Claridges, 12 Aurangzeb Road, New Delhi Sponsored by British High Commission.
23. Biogas Enrichment and Bottling Technology for Municipalities, National Seminar on Nisargruna Biogas Technology on 25th May 2009 organised by BMG, BARC Mumbai.
24. Renewable Energy – An Overview and Advancement in Biogas Technology, in STP on Environment Protection and Sustainable Development for Teachers of Engineering Colleges in North India at National Institute of Technical Teachers Training & Research, Chandigarh on 16.7.2009 at 11.00 am.
25. Biogas Utilization in India as Biofuels – Recent Development in Biogas Purification Technology For Vehicular Use, as Keynote Address on 25.7.2009 at 1.00 pm in National Workshop on Emerging Horizons in Biofuels Research and Applications 25-27 July 2009 Organized by RBS College, Agra at Hotel Marina, Agra.
26. Presented a paper in R’09 Twin World Congress (resource Management and Technology for material and Energy Efficiency) Davos, Switzerland 14-16, September 2009.
27. Integrating Algae Biofuel farm with biogas production , enrichment and bottling for vehicles and energy independence in rural areas, 2nd Algae Biofuel International Summit 2009, 8-10 Sept 2009 , 2.00 pm on 10.9.2008 at NAAS Complex, PUSA, New Delhi organized by Grow diesel Consortium.
28. Biogas purification and bottling technology for vehicular application and rural energy security – invited lecture in International Congress on renewable Energy, 6-7 Oct 2009 at India Habitat Centre, 12.15 pm on 7.10.2009 organized by Solar Energy Society of India
29. Invited lecture on Biogas enrichment and bottling technology in the Business Meet on Biogas organized by MNRE on 8th Feb 2010.
30. Invited lecture on Biogas enrichment and bottling technology during agri-site visit of delegates of Methane to Market Expo 2010 on 2nd March 2010 organized by United States EPA and Govt. of India
31. Invited lecture on Biogas enrichment and bottling Technology, 13.5.2010 – 11.30 – 1.00 pm and brain storming session in Development Alternative HQ at Vasant Kunj, New Delhi

32. Invited lecture on Biogas- A clean and fuel for cooking and improvement in indoor air quality, sanitation & health in rural areas, in National workshop on indoor air pollution and health, brainstorming for cleaner environment towards achieving MDG's organized by TERI on 11.8.2010.
33. Invited lecture in joint session of Swedish –Indian Biogas delegation visit in Sweden on 30 Aug 2010 on Biogas upgradation technology in India – present status and challenges at NRS, Helsingborg, Sweden
34. Invited lecture in Delhi International Renewable Energy Conference in one day workshop on Biomethanation – upscaling challenges and opportunities on 27th October, 1020 on Biogas purification and bottling at the goshalas (cattle farms) – case studies at Noida Expo and Mart organized by MNRE, GOI.
35. Invited lecture on Indian Renewable Energy scenario at Dept. of Biological and Environmental Sciences, University of Jyväskylä, Finland on Nov 23, 2010.
36. Invited lecture on Biogas production and utilization technologies in India, Ecotopia Science Institute, Nagoya University Japan on December 16, 2010.
37. Invited talk on Waste to Energy- Biomethanation route in the Indo- Finnish workshop on Bioenergy during 23-24 May 2016 at IIT Delhi, 24.5.2016 at 2.30 pm
38. Invited talk delivered on “Biogas – for self-reliance in energy and income generating activities for Goshalas (common Cattle shed) in the program – one day seminar on Goshalas organized by Ministry of Environment and Forest, GoI at Vigyan Bhavan New Delhi, 16.5.2016
39. 23.2.2011 at 11.00 am invited lecture on Biogas production- Biotechnological Aspects ; Upgradation and bottling technology for use in vehicles developed at IIT Delhi in SYNAPSE, KARYON 2011 annual Technical Festival of Delhi Technological University
40. Invited lecture on 29.4.2011 at 12.15 pm on Efficient use of biowastes for biogas production, power generation and purification for vehicular applications, in National Conference on Efficient Energy Management in Urban & Rural Sector, 28-29, April 2011 at IIC, New Delhi organized by CDT Foundation
41. World Wide Webcast of invited Lectures by UNESCO for Energy for Sustainable Development in Asia” course for COMPETENCE project
42. “Good Practices (Policy, Technology Innovation and/or Public Participations) and Lessons Learned” on Renewable Energy – An Indian Case – 5.04.2011 at 8.30 to 10.30 am Indian time
43. Renewable energy Technologies: Benefits and challenges – Bio-energy – 15.3.2011 during 8.30 to 10.30 am Indian Standard Time
44. Lecture on 11.11.11 on Technologies for Sustainable development and Environment in Management development Programme on Rural Enterprises, 10-18 Nov 2011 by RuTAG, Mech Engg Dept, IIT Delhi
45. Invited lecture on Biomass Energy Technology- Issues and challenges in India, Seminar on Renewable Energy by IITD Alumni Association , 12.11.2011
46. UNESCO-ODA 3rd Workshop on Promotion of Energy Science Education for Sustainable development in Asia (Vietnam) 25 December 2011 – Lecture on renewable Energy Sources
47. Invited lecture on “ Entrepreneurship Development in Biogas Sector in India” in NATIONAL SEMINAR ON Entrepreneurship Development in Renewable Energy 12th MARCH 2012 , at 12.30 to 1.30 Bharati Vidyapeeth’s College of Engineering New Delhi
48. invited lecture on “ Biogas enrichment and bottling technology for vehicular application” April 26, 2012 at 4.00 pm in World Renewable Energy Technology Congress, 25-27 April 2012 at NDCC, New Delhi in Bio-energy Session, organized by Energy and Envnt Foundation, New Delhi
49. Wastes to wealth through biogas , Lecture in Refresher Course on 23.1.2013 on Geopgraphy and environment , by Academic Staff College, Jamia Milia University, Delhi
50. Biogas enrichment and bottling technology, Workshop on utilization of Biogas in Automotive industries, 28 Jan 2013 at BDTC, CRDT IIT Delhi

51. Organised a Workshop on valorization and Management of Biogas Slurry, 12-13 Feb 2013 at BDTC, IIT Delhi
52. Lecture on Biogas production, utilization and slurry management in on valorization and Management of Biogas Slurry, 12-13 Feb 2013 at BDTC, CRDT, IIT Delhi
53. 15.4.2013 invited lecture “Biogas Technologies as Viable options for cooking, electricity generation, enrichment and bottling and biofertilizer” National Consultation on Appropriate Technology Options for Waste management through renewable energy production, Organised by Society for Action in Community Health ,at SPWD Vishnu Digambar Marg, New Delhi
54. 3.5.13 invited lecture on Biogas enrichment and bottling technology, in Brain Storming workshop on Rural Technologies Dissemination Strategies, organaised jointly by BDTC, RuTAG and KVIC Interface at IIT Delhi
55. 10.7.13 at 2.00 pm 3rd Working Group Meeting- Revision of the SWM Manual, invited lecture on Uses of Land Fill gas and developments so far in gas capturing, GIZ-CPHEEO , Ministry of Urban Development,GOI 9-10 July, 2013 Vigyan Bhavan Annexe, NewDelhi
56. Invited lecture on “ Biogas enrichment and bottling for vehicular application – Indian Prospects and potential” in VII WAC Universal Conference 2013 – save the planet earth & humanity by restoring balance in nature Dec 11-13, 2013 at India Habitat Centre, New Delhi organized by Aqua Foundation Session 5 time 11.30 on 12 Dec 2013
57. Compressed biogas (Bio CNG) – as a viable alternate to transport fuel and cooking, invited lecture in the closing ceremony of “Oil and Gas Conservation Fortnight-2014 Programme “ of Oil India Ltd , Corporate Office , Noida
58. Invited lecture by Prof V K Vijay on Biogas Technology, Planning and Implementation, in ITEC Training Program on “Renewable Energy and Energy Efficiency” Tentative Agenda (Feb 17 – Mar 7, 2014), organized by TERI New Delhi
59. Brainstorming Workshop on R&D on Biogas Technology on 24.3.2014 at MNRE New Delhi presented on Biogas R&D at IITD and possible future directions – Prof V K Vijay
60. Inaugural Address on Waste to Biogas: upgradation and bottling technology for energy security and clean India and our social responsibilities, in a National Seminar on “Redifining: Virtues and Sins in 21st Century – Navdristi” organized by Gargi College, Delhi University on March 25, 2014.
61. Invited key note speech on “ Developments in Biogas Upgrading & Bottling for Transportation and cooking applications and their prospects in India, in - Ist International Conference on Renewable Energy Gas Technology (REGATEC 2014) at Malmo Sweden 22-23 May 2014
62. Invited lecture on Developments in Biogas production, upgradation and bottling Technology on 28 May 2014 at Dept of Process and Energy Engineering, TU Delft, The Netherlands
63. Invite lecture in R&D Conclave on New and Renewable Energy at Vigyan Bhavan New Delhi on 5August, 2014 on projects “Biogas production, purification and bottling and it’s vehicular application as well as on mobile unit” Delivered an invited lecture” Prospects of biogas for waste management in India and commercialisation through biogas upgradation” in Advance Approaches for bio-waste and waste water treatment, 9-10 December,2014 organised by TERI and Embassy of Italy
64. Delivered an invited lecture on IIT Delhi Biogas technology in Indo- Finish Workshop on “ Inclusive & frugal Innovation” on 10 December, 2014 at IIT Delhi organised by FITT,IITDelhi
65. Invited lecture on “ Biogas based distributed power supply – a sustainable option for Rural areas”- by V K Vijay on 23 December,2014 in National workshop on Distributed generation including smart micro grids- issues, challenges & advancements during Dec 22-23, 2014 at Central Board of Irrigation and Power , New Delhi
66. Discussion on Biogas and improved cook stove technology with Shri Deepak Gupta , Chairman UPSC in his office on 23.12.2014 at 4.00 pm

67. Invited to deliver a talk on biogas in Shri Krishanan Gosahala, Bawana for farmers of nearby 10 villages on 14 January, 2014
68. Invited Lecture in Dept of BioEnergy, Tamil Nadu Agricultural University, Coimbatore on Wastes to Biogas to Enrichment and bottling for Energy Security in India on 28 Jan 2015 at 12.30 pm
69. Invited Speaker in Hello Tomorrow Challenge 2015 Kick off at 11.00 am at the embassy of France, New Delhi on entrepreneurship opportunities on biogas related technology
70. Invited Lecture in International Conference on Sustainable Fuels on Developments in Biogas upgradation and bottling for vehicular Application in India on 2nd Feb, 2015 at Hotel Taj Palace New Delhi organized by TERI and sponsored by Tata Motors
71. Invited lecture on Role of Biogas in Clime Change mitigation in National Workshop on Green Energy for mitigating Climate change in India and Livelyhood- on 4.3.2015 at Hotel Crown Plaza, Rohini, New Delhi organized by World Vision (India).
72. Invited lecture in the Anil Agarwal Dialogue of CSE on Solutions on the table: Energy access using cookstove and biogas Day II - March 12, 2015 (9:30 AM to 1:00 PM) Chair: Dr S B Agnihotri, former Secretary MNRE, 9:30 to 10.00 Experience of biogas technology in India.
73. Presented an invited paper “Decentralized biogas enrichment and bottling technology for cooking and vehicular application in India for energy security” in International Conference – Progress in Biomethane Mobility at Schwabisch Hall, Germany during Oct 27-28, 2015
74. Brain Storming Workshop with Subject Group Coordinators of Unnat Bharat Abhiyan at IIT Delhi during Nov 13-14, 2015
75. Invited lecture Solid Waste management –an Opportunity for Energy Security and Clean India in Swachh Bharat Abhiyan in Swachh Bharat Mission Exposure Workshop conducted by National Institute of Urban Affairs on Behalf of Ministry of Urban development under Swachh Bharat Mission on 2 May, 2016 at USI New Delhi.
76. Organized a plenary session on Biogas Production, power generation and purification for transport fuel in India on 6th January, 2016 in Indian Science Congress, Mysore
77. Chaired Brainstorming session for preparation of “ National Biogas Mission” for MNRE organized at BDTC, IIT Delhi on 15.01.2016 during 4.00-7.00 pm
78. Invited lecture “concept of smart village and Unnat Bharat Abhiyan ” in International Conference on Smart Cities in IIT Delhi and EU-India FI-MEDIA Projects at 10.00 am on 22 January, 2015
79. Delivered an invited lecture in Christ University Bangalore on Biogas Potential and Prospects in India on 7th January, 2016 for University Students
80. Invited lecture on 1-4-2016 “ Biogas Production from Organic waste for Industrial Application “ in National Conclave on R&D for Energy Sustainability organized by NTPC Energy Technology Research Alliance during March31- April1, 2016
81. Invited lecture Solid Waste management – an Opportunity For Energy Security and Clean India in Swachh Bharat Abhiyan in Swachh Bharat Mission Exposure Workshop conducted by National Institute of Urban Affairs on Behalf of Ministry of Urban development under Swachh Bharat Mission on 2 May, 2016 at USI New Delhi
82. 16.5.2016 at 3.30 invited talk delivered on “ Biogas – for self-reliance in energy and income generating activities for Goshalas(common Cattle shed) in the program – one day seminar on Goshalas organized by Ministry of Environment and Forest, GoI at Vigyan Bhavan New Delhi
83. 24.5.2016 at 2.30 pm Invited talk on Waste to Energy- Biomethanation route in the Indo-Finnish workshop on Bioenergy during 23-24 May2016 at IIT Delhi
84. Invited lecture on 1-4-2016 “ Biogas Production from Organic waste for Industrial Application “ in National Conclave on R&D for Energy Sustainability organized by NTPC Energy Technology Research Alliance during March31- April1, 2016
85. Invited lecture Solid Waste management – an Opportunity For Energy Security and Clean India in Swachh Bharat Abhiyan in Swachh Bharat Mission Exposure Workshop conducted

- by National Institute of Urban Affairs on Behalf of Ministry of Urban development under Swachh Bharat Mission on 2 May, 2016 at USI New Delhi
86. 16.5.2016 at 3.30 invited talk delivered on “Biogas – for self reliance in energy and income generating activities for Goshalas(common Cattle shed) in the program – one day seminar on Goshalas organized by Ministry of Environment and Forest, GoI at Vigyan Bhavan New Delhi.
 87. 23.5.2016 Invited talk in Brainstorming session - A consultative meet on “Mainstreaming Bio gas production and utilization in India” organized by Chairman – Working group on Bio fuels, MoPNG, Govt of India.
 88. 24.5.2016 at 2.30 pm Invited talk on Waste to Energy- Biomethanation route in the Indo-Finnish workshop on Bioenergy during 23-24 May2016 at IIT Delhi.
 89. 31.5.2016 Brain Storming on Organic Waste Streams for Industrial Renewable Energy Applications in India specially Biomethanation and participated as a chairman cum moderator of the session organized by UNIDO, MNRE, and GEF, at UN House, Lodi Road New Delhi.
 90. 10 August 2016, National Conference on Energy Security for India- Creating a Biofuel Economy by MoPNG at Vigyan Bhavan, and parallel session on Main Streaming Biogas & waste to Energy in India “ presentation on “ prospects of Biogas Technology for utilization in Vehicles.
 91. 03.02.2017, International Conference on Environmental Exposure and Preventive Healthcare at IIT Delhi in collaboration of IPCA, India Development Service and University of Wisconsin Whitewater – delivered a lecture on waste management, biogas and prevention of environmental hazards.
 92. 7 March2017 Workshop on Effective and efficient realization of extensive bioenergy resources in India, Panel for Potential , opportunities and challenges at TERI, New Delhi organized by NITI Aayog and TERI
 93. 15.6.2017 at 10.00 am an invited lecture on “Biogas – an opportunity for mitigating climate change and promotion of organic agriculture” in refresher course in Climate Change and Disaster Management from 9th June 2017 to 30th June 2017 in Centre for Professional Development in Higher Education (CPDHE), UGC-Human Resource Development Centre, University of Delhi.
 94. 30.10.2017 10.30 am Invited lecture on “Rural Poverty alleviation through renewable energy systems and entrepreneurship” in the National Conference on Developed Village-Developed Nation for Sansad Adarsh Gram Yojana organized by AICTE New Delhi 29-30 Oct, 2017.
 95. 29th November 2018, Organized and delivered lectures in “UBA Regional workshop for PIs to initiate work in adopted village clusters (for Delhi NCR and Haryana Region) at IITD.
 96. 28 Jan 2019 invited lecture – Inaugural lecture in the National workshop on Mainstreaming Waste to Energy from MSW to the National Energy Mix of India at Hotel Lalit New Delhi 11.00 am organized by GGGI.
 97. आमंत्रित व्याख्यान – बायोगैस प्रद्योगिकी: विभिन्न आयाम २४.२.२०१९ २.१५ – ३.१५ सायं रास्ट्रीय कार्यशाला उभरती हरित प्रद्योगिकी अवं तकनीकी शब्दावली, वर्डज्ञानिक अवं तकनीकी शब्दावली आयोग भारत सरकार अत रामजस कॉलेज दिल्ली विश्विद्यालय.
 98. 1st March, 2019, Invited lecture of Gram Urja Swaraj – Bioenergy for self-sufficiency of energy in villages from locally available resources, Off Grid Access to Electricity-Innovation Challenge #2, nd International Stakeholder Meeting at IIT Delhi sponsored by DST
 99. Addressed the Natural Gas Conclave 2019 - India Moving towards Clean Energy held on 26th March, 2019 at PHD House, New Delhi.
 100. 18.6.2019 Invited lecture on “Effect of engineering, education, environmental parameters on child and infant health in tribal areas of Rajasthan” in PANCHSEEL workshop at UCL London.

101. 2.7.2019 Invited lecture “Biogas technologies for rural areas in the country” in National Biogas training workshop at organized by “shri Krishna Gau Sauvardhan Gaushala, Jamnagar.
102. 14-15 August, 2019, Invited lecture delivered “Water scrubbing Technology for Biogas upgrading” Asia Pacific Biogas upgrading CBG round Table at Energy Research and Development Institute, Chiang Mai, Thailand.

Annexure 5

VISITS ABROAD:

1. 18th International Conference on Solid Waste Technologies and Management, Philadelphia, USA, 23-26 March, 2003
2. UK 26- 30 March, 2003
3. The first International Symposium on South East Asian Water Environment, October 23-25, 2003 Asian Institute of Technology, Bangkok Thailand
4. 2nd World Conference and Exhibition on Biomass for Energy, Industry and Climate Protection, 10-14 May, 2004 Rome, Italy
5. International Conference on Sustainable Energy and Environment: Technology and Policy Innovations 21-23, November 2006 at King Monkut’s University of Technology Thonbury, JGSEE, Bangkok
6. International Symposium on “ The Quest for Harmonious Co-existence in the Planetary Community” 23-25 November, 2006 by Kyoto University, at Bangkok
7. 3rd SEE Forum Meeting along with 5th Eco- Energy and Materials Science and Engineering Symposium, Pattaya Thailand 21-22 Nov, 2007 by King Monkut’s University of Technology Thonbury, JGSEE, Bangkok
8. International Symposium on Eco Topia Science 07, Nagoya University Japan Nov 23-25, 2007
9. 1st Int Symposium on Aqua Science, Water Resource and Innovation development of Country Side, Nov 26-30, 2007 Sakuraza, Sakawa, Kochi Japan.
10. ASEAN COST +3 New Energy Forum for Sustainable Environment, Kyoto University, Japan 25-27 May 2008
11. 3rd workshop for Studies on Extracting Resources from Biowastes by Refinery Technology at Nagoya University Japan, 23-24th Feb 2009
12. Invited lecture on “Biogas Enrichment and Bottling Technology for Vehicular Application and Possible Collaboration with Nanotechnology and Nanoscience Initiatives, National University Singapore, March 27-31, 2009 Seminar on March 30, 2009 at 11.00 am.
13. Chaired a technical session on Bio Energy on 19th May 2009 in World Renewable Energy Congress 2009 – Asia during 18-21 May 2009 at Bangkok and attended 5th SEE Forum Meeting on 18th May 2009.
14. Presented a paper in R’09 Twin World Congress (Resource Management and Technology for material and Energy Efficiency) Davos, Switzerland 14-16, September 2009.
15. Presented a paper and chaired a session on Biomass and Biogas Systems in Renewable Energy – 2010 Int. Conference and Exhibition, Yokohama, Japan June 27-July2, 2010
16. Visit of Indian delegation to Sweden in the field of Biogas production and utilization from 30.8.2010 to 04.09.2010 sponsored by MNRE, GOI and invited by Govt. of Sweden as member
17. Visit of Jyvaskyla University ,Jyvaskyla, Finland in a coordination meeting of Biogas Upgradation member of EU Vapor Gas project Nov 20 -23 , 2010
18. Nagoya University Japan as Visiting Professor Dec 14-22, 2010
19. EU Food waste to Biogas coordination Committee Meeting at London March 23, 2011
20. UNESCO-ODA 3rd Workshop on Promotion of Energy Science Education for Sustainable development in Asia (Vietnam) 25 December 2011

21. Review meeting of EU-consortium research project valorization of food waste to biogas, 29 may 2012 Brussels, Belgium
22. Review meeting of EU-consortium project “ Valorisation of Food Waste to Biogas “ Valorgas, 29 May, 2013 at Lisbon, Portugal and field visit in Germany in June 1-7, 2013
23. Presentation on Small Scale biogas upgradation and bottling and its prospects in India and EU, Valorgas consortium meeting in Brussels, Belgium at EU head quarter on 22.10.2013
24. Participated in Steering Committee meeting of Sustainable Energy and Environment Forum (SEE Forum for Asian countries) on 10 .3.2014 at KualaLumpur, Malasia and presented country report on Indian Renewable Energy Scenario
25. Invited key note speech on “ Developments in Biogas Upgrading & Bottling for Transportation and cooking applications and their prospects in India, in - 1st International Conference on Renewable Energy Gas Technology (REGATEC 2014) at Malmo Sweden 22-23 May 2014
26. Invited lecture on Developments in Biogas production, upgradation and bottling Technology on 28 May 2014 at Dept. of Process and Energy Engineering, TU Delft, The Netherlands
27. Presented an invited paper “Decentralized biogas enrichment and bottling technology for cooking and vehicular application in India for energy security” in International Conference – Progress in Biomethane Mobility at Schwabisch Hall, Germany during Oct 27-28, 2015
28. NSTDA Meeting and SATREP meeting in JGSEE, SEE Forum meeting, Bangkok Thailand, Feb28- Mar 2, 2016
29. University College London and Imperial College Business School for collaborative work, London, June 21-25, 2016.
30. Participated in Expert Panel Meeting of ‘**Towards a Sustainable Earth**’ call for approving joint projects from India, China, UK, Japan and Sweden in London and represented DBT Govt. of India on 20.11.2018.
31. 18.6.2019 Invited lecture on “Effect of engineering, education, environmental parameters on child and infant health in tribal areas of Rajasthan” in PANCHSEEL workshop at UCL London.
32. 20.6.2019, Belfarm Biogas plant in Scotland, Dundee University and St. Andrew University discussion with Dr Sneh Jain , Coordinator Energy Research in St Andrew University.
33. 21.6.2019 Napier Edinburgh University, Belfarm Biogas plant visit
34. 14-15 August, 2019, Invited lecture delivered “Water scrubbing Technology for Biogas upgrading” Asia Pacific Biogas upgrading CBG round Table at Energy Research and Development Institute, Chiang Mai, Thailand.

Courses/Programmed - Conducted / Coordinated:

1. ISTE summer school on “Development, Utilization and Management of Non- Conventional Energy Sources” June 7-19, 1993 for Polytechnics at Udaipur.
2. ISTE summer school on “Harnessing of Renewable Energy Sources for Rural Development & Environmental Protection” for teachers of engineering colleges, June20-July2, 1994 at CTAE Udaipur.
3. Organized more than 20 training’s for biogas staff during 1989 -92.
4. National training programme on IREP at Mt. Abu, April 8-10, 1998, Sponsored by REDA, Jaipur.
5. ISTE summer school on Rural Energy Planning for Holistic Development for Polytechnic teachers, June 5 – 19, 1999
6. Entrepreneurship Awareness Camp, Sponsored by DST, New Delhi Sept. 29-Oct.1, 1999 at CTAE Udaipur.
7. National Conference on Commercialization of Renewable Energy Sources, April 28-29, 2000, as Co- Convener, Udaipur

8. ISTE Summer School on Entrepreneurship Development in Non-conventional Energy Sources, June 19-July 1, 2000 Udaipur as Coordinator
9. AICTE Induction Training Programme for Teachers of Engineering Colleges, June 25-July 14, 2001 at College of Technology and Engineering, Udaipur Coordinator – A.N. Mathur, Co-coordinator V.K. Vijay
10. National Conference cum Exhibition on Panchgavya Products and Rural Economy, 6-8 September, 2002 at IIT Delhi. Guidance –Viswa Ayurved Parishad.
11. Workshop on Improvement of Collection Methodology and Post-Harvest Management Practices of Medicinal and Aromatic Herbs” at DPT, IIT Roorkee, Saharanpur, 30 –31 May, 2003.
12. All India Conference cum Exhibition on Sustainable development “Prakriti 2003” at IARI, New Delhi 11-13 October, 2003
13. Workshop on Cultivation and Marketing of Medicinal and Aromatic Plants of Farrukhnagar Area, Grugaon 6-7 December 2003
14. CEP/QIP Course on Role of Technical Institutions in Rural Industrialization (6-11 June, 2005)
15. Consultative Workshop on Rural Entrepreneurship Possibilities using Bio-Fuels and Animal Power at MGIRI, Wardha on March 23-25, 2007
16. Dissemination of Technologies for Rural Industrialization – A national consultative meet , 9th May 2008 at IIT Delhi
17. Renewable Energy Asia 2008 – An International Conference and 4th SEE Forum Meeting 11-13, December 2008 IIT Delhi
18. Technology Identification Workshop, 29-30 May 2009 IIT Delhi by Rural Technology Action group (RuTAG) IIT Delhi , Co- coordinator
19. Unnat Bharat Abhiyan- National Workshop, September 7-9, 2014 at IIT Delhi on How to revitalize the country with S&T inputs for rural development.
20. Brain Storming Workshop with Subject Group Coordinators of Unnat Bharat Abhiyan at IIT Delhi during Nov 13-14, 2015
21. Organized National Training Program on Biogas Generation, Enrichment and Power Generation Technologies for all Applications, March 3-5, 2016 at BDTC, IIT Delhi
22. 11.5.2016 at 9.00 am Technology Day – celebrated at IIT Delhi by Unnat Bharat Abhiyan and Vijnana Bharti – Chief Guest Hon’ble Defence Minister Shri Manohar Parrikar , Seminar Hall, IIT Delhi
23. 23.5.2016 to 27.7.2016 International Training for Peru Republic participants on Biogas production, enrichment and bottling technology at IIT Delhi – coordinated and delivered lectures.
24. UBA- Activity Planning Workshop of MIs and Subject Expert Group coordinators during August 22-23, 2016 at IIT Delhi coordinated by Prof V K Vijay
25. Organized National Steering Committee meeting of Unnat Bharat Abhiyan as member convener on 6.10.16 at 10.00 am in IIT Delhi
26. Organized a national brainstorming cum consultative workshop on “Scientific validation & Research on Panchgavya, Dec 18-19, 2016 at IIT Delhi. Dr Harshvardhan, Honorable Minister of Science and Technology were the Chief Guest.
27. Organized a brainstorming session on “***From Rice Straw Burning to Biogas: An Outlook for Responsible Innovation***” was organized in Indian Institute of Technology (IIT), Delhi on 14th February, 2017 for science and policy development. By BDTC IITD, and Maastricht University Netherlands
28. 11 May 2017 at 10.30 am Technology Day celebration on “ High end technology for Rural India” chief guest Shri Ramkripal Yadav, MoS, Rural development Govt of India and key speaker Dr R Chidambaram, Principal Scientific Advisor to GoI.

Courses Taught:**Ph.D. Level**

- Rural Industrial Planning and Management
- Energy Conservation and Management
- Wind & Human Environment
- Advance Energy Studies
- Rural Energy Systems

M.E. Level

- Solar Energy Utilization
- Biomass Conversion Technology
- Biogas Technology & Mechanism

B.E. Level

- Renewable Energy Sources
- Nonconventional Energy Sources
- Renewable Power Source
-

Institute/Centre's responsibility:

- Head CRDT since 01/7/2015
- Security Advisory Committee, IIT Delhi- Member (from 1st Nov 2009-31 Aug, 2010)
- House Allotment Committee, IIT Delhi – member (from 1st Sept 2008 to 31st Aug 2010)
- Member , IRD Board, IIT Delhi (1st Sept 2009 to 31st Aug 2010)
- Member, PEC, IDDC, (1st Sept 2009 to 31st Aug 2010)
- Convener, CRC (2004-2006), Member CRC (2007 – continue)
- Lab In-charge – Biogas Lab 2008-continue
- Store In-charge, CRDT (1st Sept 2009 to continue)
- Treasurer, Faculty Forum, IITD, Mar 2007 to continue
- Member Proctorial team of IITD for anti – ragging 2007, 2008, 2009,
- Member, House Allotment Committee, 2012-2013 IIT Delhi
- Member, Employees Welfare Committee 2012-2013, IIT Delhi

Short Term/ Refresher Courses/ Summer Schools**(Conducted/ Attended)****Courses Conducted / Coordinated:****Courses Attended:**

1. Power Generation from Biomass, 1989 for 4 days at CTAE Udaipur
2. Waste Recycling and Resources Recovery system, Aug 28-31, 1989 at CTAE Udaipur
3. QIP course on Information Technology, 5-10, Dec. 1994 at IIT Delhi
4. How to get started in Rural Development: Workshop by CII, New Delhi Nov. 28, 1995
5. Short term Training Programme on Technology Management, 20-31, May 1996 at IIT Delhi
6. Short term QIP course on "Sustainable Transformation of Rural Areas" October 14-18, 1996 at ASTRA, IISc Bangalore
7. Training Programme on Satellite Remote Sensing and GIS, organized by RRSc, ISRO Jodhpur on 12.2.99 at Udaipur.
8. ISTE Summer School on Planning and Management of Natural Resources, June 29-July 12, 1998 at CTAE, Udaipur
9. Summer School on Ancient and Medieval History of Indian Agriculture and its Relevance to Sustainable Development in the 21st century, 28 May – June 17, 1999 at RCA Udaipur
10. National training on Rural Energy Planning and Implementation Strategies organized by CTAE Udaipur during 18-22 September, 2001

Programmes Organized for Students:

1. Entrepreneurship Awareness Camp Sponsored by National Science & technology Development Board, DST, New Delhi Feb. 19-21, 1999 at CTAE Udaipur.
2. Entrepreneurship Awareness Camp, Sponsored by NSTEDB, DST, New Delhi Sept. 19 – Oct. 1, 1999 at CTAE Udaipur.
3. Entrepreneurship Awareness Camp, Sponsored by NSTEDB, DST, New Delhi January 11-13, 2000 at CTAE Udaipur.
4. Entrepreneurship Awareness Camp, Sponsored by DST, New Delhi Feb. 5-13, 2001 at CTAE Udaipur.
5. Entrepreneurship Awareness Camp, Sponsored by DST, Rajasthan Feb. 12-13, 2001 at CTAE Udaipur.

Radio Talks & TV Programs:

1. Urja Avam Hamara Paryavarn – Gramin Parivesh Me - All India Radio, New Delhi – 16.11.2003 Unnat Krishi Karykram, 2.00 pm.
2. Pashu Urja Ka Gramin Vikas Me Yogdan, All India Radio New Delhi 8.8.2004 Unnat Krishi Karyakram, 2.00 pm.
3. Gram Sansar Varta- Pashu Chalit Urja Va Vidhyut Utpadan, 28.9.2004, 18.20 h
4. Gaon Ki Urja Hetu Biogas Cylinders, AIR Delhi Krishi Jagat, 16.11.2004 at 19.05 h
5. Biogas Ka Vyavsayik Upyog, AIR Goonje Swar Gaon Ke, 23.2.2005 at 2.00pm
6. Urja Avam Gramin Paryavaran, Goonje Swar Gaon Ke, AIR, 29.6.2005 14.00 h
7. Urja Hetu Biodiesel, Gram Sansar Varta, 30 March 2007 at 6.20 pm AIR Delhi
8. Gramin Udyogo Me Pashu Urja Ka Mahatva, 27 Sept 2007 at 6.20pm Gram Sansar Varta, Indraprastha Channel, AIR
9. Panel Discussion on Employment Guarantee Scheme with Rural Development Minister, GoI Shri Raghuvansh Prasad Singh on DD I at 2.00 pm 25.10.2007.

10. Pradushan Rokne Me Aparmparik Urja Sroto Ka Yogdan, Science Cell, Indraprasth Channel, AIR, New Delhi , 22 Feb 2008 at 8.00 pm, 10.00 minutes
11. Urja Ke Vaikalpik Strota, 23 May 2008 at 6.20pm Gram Sansar Varta, Indraprastha Channel, AIR
12. Urja Ke Vaikalpik Stotra Ka Upyog, 31 July 2008 at 6.20 pm Farm and Home, Indraprastha Channel, AIR
13. Gramin Vikas Ke Liye Upyogi Taknik, Science Cell, AIR Delhi, 14 Feb 2009 8.00 pm
14. Participated as an expert in Doordarshan TV show on *Swatch Bharat* Programme discussion role of biogas in total sanitation and *Swatch Bharat* in villages on 21 Novemebr2014 at 8.30 am Friday
15. Door Darshan Kisan TV Channel – Vichar Vimarsh one hour show on 17.6.2015 at 7.30 pm panel discussion on Jaiv Urja- Ek Vikalp (Bio energy – an alternative)
16. Participated in Discussion on Lok Sabha TV channel on the side line of BRICS nations working group meeting “ Energy conservation and energy efficiency in Brazil, Russia,China, India and south Africa on 4.7.2016 at 7.00 pm
17. **06.1.2017** Participated in live Loksabha TV discussion on 6 January 2017 at 6.00 pm in Public Forum program on promoting scientific excellence announced in 104th Science Congress through scientific Social responsibility a new concept announced by the Prime Minister
18. Guest in RSTV DeshDeshantar: Biofuel policy 2018 on 10 Aug 2018
19. Guest in RSTV Eureka: Biogas: A clean energy for the environment on 1 Sep 2018

Chairing Technical Sessions:

1. 1st Technical Session on “Biogas Generation” on 12.2.2009 at 9.00 am in Workshop on “Demonstration of Integrated Technology Package on Medium Size Biogas Fertilizer Plant for Generation, Purification/ Enrichment, Bottling and Piped Distribution of Biogas Towards Harnessing Near Total Potential of Suitable Biomass in Rural Areas” 11-12 Feb 2009 at Hotel Surya Palace, Vadodara, organized by MNRE, GOI and GAIC Gujarat
2. Technical Session on Alternate Fuels on 13 Feb 2009 at 11.00 am in International Conference on Gaseous Fuels, 11-13 Feb 2009 at Hotel Marriot Resort, Goa Organized by Oil Industry Safety Directorate, Ministry of Petroleum, Govt. of India.
3. Methane to Market – Regional Workshop on Opportunities in Livestock and Food Processing Sector, 3-4 March 2009 Chaired Session III- Technologies, Economics and Case Studies: Asian Experience in Demonstration of Methane to Market, Organized by TERI at Indian Habitat Centre Sponsored by USEPA.
4. Chaired a Technical Session on Bio Energy on 19th May 2009 in World Renewable Energy Congress 2009 – Asia during 18-21 May 2009 at Bangkok and Attended 5th SEE Forum Meeting on 18th May 2009.
5. Chaired 1st Technical Session on Emerging Research in Production of Biofuel from Cellulosic and Lingo-Cellulosic Substances on 25.7.2009 at 4.00 pm in National Workshop on Emerging Horizons in Biofuel Research and Applications 25-27 July 2009 Organized by RBS College, Agra at Hotel Marina, Agra
6. Technical session on innovative financing options for next generation Biofuel projects with special focus on carbon finance, 2nd Algae Biofuel International Summit 2009, 2.00 pm on 10.9.2008 at NAAS Complex, PUSA, New Delhi organized by Grow diesel Consortium 8-10 Sept 2009 ,.
7. Chairing Technical discussion on EU consortium Research project WP 5 members meeting on Biogas upgradation and utilization at University of Jyvaskyla Finland on Nov 22, 2010

8. Chairing a technical session on Technology conversion options for waste to energy, 11 Feb 2014 at 2.00 pm in the national consultation on “ Organic waste streams for industrial energy applications” organized at TERI, New Delhi sponsored by UNIDO
9. Chairing the concluding session – in workshop on Climate mitigation & poverty alleviation through advocacy & awareness on low carbon technologies on 20 May 2014 organized by All India Women’s Conference, New Delhi
10. Chairing session on Biogas enrichment in National Biogas Convention 2015 on 16th Sept, 2015 at IIT Delhi