

RESUME

of

Dr. J. LETHA

Vice Chancellor

CUSAT

Name : **Dr. J.Letha**

Date of Birth : 28-5-1959

Address :

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1. Summary

I have put in thirty years of service in teaching, research, consultancy and administration in the Department of Technical Education, Government of Kerala.

My major assignments include:

- Vice Chancellor, CUSAT
- Director of Technical Education
- Principal, College of Engineering, Trivandrum
- Dean, Faculty of Engg. And Technology, University of Kerala
- Dean, PG Studies, College of Engineering, Trivandrum
- Registrar, TEQIP-Phase1, College of Engg, Trivandrum
- Head of Civil Engg. Dept, College of Engg, Trivandrum
- Nodal Officer, Academics, Technical Education Quality Improvement Project.(TEQIP-Phase 1) (World Bank Aided Project), College of Engg, Trivandrum
- Member of Board of Governors, IIT, Madras
- Member of Board of Governors, IITM, Kerala
- Member, Senate, University of Kerala
- Member, Board of Governors, LBS Institute of Technology
- Member, Board of Governors, SCT
- Member Board of Governors, CCE-Kerala
- Member Board of Governors, Pollution Control Board
- Member, Board of Governors for 13 Engg. Colleges of the State coming under TEQIP-Phase2
- Syndicate Member, CUSAT
- Executive member, Academic committee, Govt. of Kerala
- Member, Board of Governors, TKM college of Engineering
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2. Major Academic Achievements

- Produced four Ph.Ds
- Published 14 papers in Int. Journals
- Published 7 papers in National Journals
- Receipt of Best Paper award

- Receipt of National level best teacher award

3. National and International level activities

Paper presentation at International Conference of 5th Congress Asia & Pacific Division, IAHR , Korea 1986,

Paper presentation at International Conference of IAHR, 59th and 60th R&D Sessions of CBIP conducted at New Delhi, 18th Int. Conference on Fluid Mechanics & Power, New Delhi, 1994

Paper presentation at International Conference of 10th Congress Asia & Pacific Division, IAHR , Langkawi, Malaysia, 1996,

Paper presentation at International Conference on Coastal Environment at Ashurt, UK in 2007, May 19-21

I have been serving as reviewer for research papers in Journal of Institution of Engineers.

4. Activities for institution development

During the last ten years

- (i) Serving as VC, CUSAT from 20.10.2014 to this date
- (ii) Serving as Director of Technical Education from 1.4.2011 to 18.10.2014
- (iii) Served as **Principal College of Engineering, Trivandrum** for the period 2007-2011
- (iv) Served as **Dean, Faculty of Engg. & Technology, University of Kerala** 2008-2011
- (v) Served as **Registrar, TEQIP in 2007 for which** the responsibilities include coordinating faculty and Staff development programme, Programmes under Networking and Services to Community. Furnishing the progress report of the TEQIP project in every six months and dealing with all financial matters.
- (vi) Served as the **Dean for PG Courses for 2007-2008 and Head of Civil Engg. Dept,** College of Engg, Trivandrum in 2007

5. Qualifications

Exam. Passed	University	Main Subject	Year of Passing	Class
B.Sc.(Engg.)	College of Engineering, Trivandrum. University of Kerala	Civil Engg.	1981	First Class with Distinction
M.Tech	I.I.T Madras	Civil Engg. (Hydraulics. Engg)	1983	First Class with Distinction (First Rank, Gold medal)
Ph.D.	I.I.T, Madras	Civil Engg. (Hydraulics. Engg)	1996	<i>Title of Thesis – Unsaturated Subsurface flow in Irrigation & Drainage</i>

6. Positions Held

Position	Institution	Period	Nature of Job
Lecturer in Civil Engg.	N.I.T, Calicut	1983 July-1984 October	Teaching
Lecturer in Civil Engg.	College of Engineering Trivandrum	1 984 18 th October to 15 th July 1996	Teaching, Research and Consultancy.
Assistant Professor	Rajeev Gandhi Institute of Technology	22.7.96 to 4.12.96	Teaching
Assistant Professor	College of Engineering Trivandrum	5.12.96 to 30.6.2000	Teaching, Research and Consultancy.
Professor for Part Time Degree courses	College of Engineering Trivandrum	1.7.2000 to 30.10.2001	Administration
Professor in Civil Engg	College of Engineering Trivandrum	31.10.2001 to 28.6.2007	Teaching, Research and Consultancy
Head, Dept.of Civil Engg	College of Engineering Trivandrum	28.6.2007 to 24.8.2007	Administration and teaching & research
Dean,PG Studies	College of Engineering Trivandrum	24.8.07 to 17.4.08	Administration & research
Principal	College of Engineering Trivandrum	27.12.07 to 17.4.08 as full additional charge and on regular promotion as Principal from 17.4.08 to 31.3.2011	Administration & Research
Dean, Faculty of Engg. & Technology	University of Kerala	12.5.2008 to 31.5.2011	Academic & Administration
Director of Technical Education	Govt. of Kerala	1.4.2011 to 18.10.2014	Administration & Research
VC,CUSAT		20.10.2014 to this date	Administration & Research

7.Faculty Development Programmes attended

Sl. No.	Name of Training/Workshop	Year/ Duration	Organisers
1	Materials Testing and Code of Practice	1986 2 weeks	College of Engineering, Trivandrum
2.	Ground Water Development & Management	1986 1 week	College of Engineering, Trivandrum
3	Fibre Reinforced Concrete	1987 2 weeks	College of Engineering, Trivandrum
4	Analysis Computation and Management of floods	1990 2 weeks	IIT, Madras
5.	Agricultural Drainage	1992	National Institute of Hydrology,

		2 weeks	Roorkee
6.	Engineering in Disaster Management	1995 2 days	College of Engineering, Trivandrum
7	Geomeia Professional, GMS Terrain, Microstation-J	2002 One week	ROLTA India Limited, Mumbai

8. Research & Development Programmes :

Sl. No.	Type of work	Project/Thesis title	Institution / Funding agency	Starting year and duration	Amount sanctioned if any	Status
1	Guidance of M.Tech	Rainfall runoff Analysis for a basin in Kerala	NA	1990 6 months	NA	Completed
2	Guidance of B.Tech	Analysis of subsoil characteristics in the college campus	NA	1991 6 months	NA	Completed
3	Guidance of M.Tech	Systems approach to Quality and Quantity management of Water	NA	1995 6 months	NA	Completed
4	Guidance of B.Tech	Analysis of existing irrigation policies and design of drip irrigation system	NA	1996 6 months	NA	Completed
5	Guidance of B.Tech	Computerised design of pipe networks	NA	1998 6 months	NA	Completed
6	Guidance of B.Tech	Analysis of steady and unsteady flow through closed conduits	NA	1998 6 months	NA	Completed
7	Guidance of M.Tech	Flow through side weir	NA	1998 6 months	NA	Completed
8	Guidance of M.Tech	Runoff prediction using ANM	NA	1998 6 months	NA	Completed
9	Guidance of M.Tech	Hydrologic design of a Water Resources system.	NA	1998 6 months	NA	Completed
10	Sponsored Project (TAPTEC)	GIS approach for Quantification of reservoir sedimentation-A case study	AICTE	2000	8.00 lakhs	completed
11	Guidance of M.Tech	A Scientific approach for the design and evaluation of Water harvesting structures.	NA	2000 6 months	NA	Completed
12	Guidance of M.Tech	Experimental, Numerical and Analytical solution to watershed runoff problem.	NA	2000 6 months	NA	Completed

13	Guidance of M.Tech	Performance evaluation of different types of weirs.	NA	2000 6 months	NA	Completed
14	Guidance of B.Tech	Computer aided optimal design of a water distribution network-A case study in CET	NA	2001 6 months	NA	Completed
15	Guidance of M.Tech	Computer aided cost effective design of water distribution network- A case study in Kerala	NA	2001 6 months	NA	Completed
16	Sponsored Project R&D	Watershed information system for Kerala	KSCST E	2002	13.1 lakhs	Ongoing
17	Guidance of B.Tech	Quantification of residual sediments at Peechi & Neyyar reservoir.	NA	2002 6 months	NA	Completed
18	Guidance of PhD	GIS based Watershed Modelling of Vamanapuram basin	N.A	2002	NA	Ongoing
20	Guidance of M.Tech	Water Balance study of Pamba River Basin- A Comparative Evaluation	NA	2003 6 months	NA	Completed
21	Guidance of M.Tech	Modelling of Soil Moisture Movement in an agricultural field	NA	2004 6 months	NA	Completed
22	Guidance of M.Tech	Watershed Information for typical river basins in Kerala	NA	2005 1 year	NA	Completed
23	Guidance of PhD	Optimal Design of Water Distribution Network using multi objective Genetic Algorithm	N.A	2005	NA	Completed
24	Guidance of PhD	Water Quality Modelling of a lake System using GIS	N.A	2006	N.A	Completed
25	Guidance of PhD	Salt water intrusion into coastal aquifers- a case study	N.A	2006	N.A	Completed
26	Guidance of PhD	Study on the abundance and distribution of heavy metals in an aquatic system	N.A	2010	N.A	Completed

8. Awards Received:

Sl.No.	Particulars	Organisation	Year
1.	Gold medal for M. Tech	IIT, Madras	1983
2.	Surendranath Mukherjee Award for best paper	Institution of Engineers	2005
3	ISTE- Research award for Best Teacher	ISTE-CET Chapter	2007

4	V.K.M John National award for Best Engg, College teacher	ISTE	2010
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9. Conferences/Seminars Organized :

Sl.No.	Title/ Topic	Year & Duration	Sponsors
1.	Workshop on "Save water-Save earth"	2004 One day	Education Grid Project EGRC-CET
2.	Workshop on "Awareness Programme on Kerala Education Grid Project"	2004 One day	Education Grid Project EGRC-CET
3.	Workshop on Experience on LINUX Environment",	2004 Two days	Education Grid Project EGRC-CET
4.	Training Programme on Black Board—1 st phase	2004 One day	Education Grid Project EGRC-CET
5.	Training Programme on Black Board---2 nd phase	2004 Two days	Education Grid Project EGRC-CET
6.	One day workshop on accreditation	2005 One day	TEQIP
7.	Research Methodology	2006, two days	TEQIP
8.	Creative approaches to teaching	2007, four days	TEQIP

10. Conferences/Seminars Attended:

Sl.No.	Title/Topic	Year & Duration	Organised
1.	18 th International Conference on Fluid Mechanics and Fluid Power	1991	Central Board of Irrigation and Power, New Delhi
2.	59 th R&D Session International Conference	1994	Central Board of Irrigation and Power, New Delhi
3.	National Seminar on Water and Environment	1994	Centre for Water Resources, Dept of Civil Engg, CET
4.	60 th R&D Session on International Conference on Energy 2000	1995	Central Board of Irrigation and Power, New Delhi
5.	10 th APD of IAHR International Conference on Hydraulic Research and Engineering Towards and Beyond 2000	1996	International Association for Hydraulic Research, Langkawi, Malaysia.
6.	National Seminar on Technological Development for III Millennium	16-17 March 2001	Dept of Mechanical Engg,CET.
7.	National Seminar on Interactive Integrated Technological Advancements	2002	Dept of Civil Engg, CET
8.	Workshop on "Awareness of Educational Grid and E-learning"	9 th ,13 th &20 th Aug 2003	Technopark
9.	National Level Workshop on Integrated Water Resources Assessment, Development and Management.	23,24 Sept2004.	Public Works Department , Chennai
10.	National Seminar on Conservation & Management of National Resources	23,24 Sept2004.	Dept of Zoology, Catholicate College, Pathanamthitta.
11.	Workshop on Tele-Education	4-10 Oct , 2004	VSSC, Trivandrum

12.	National Seminar on Recent Trends in Technological Advancements	26-27 Nov 2004.	Dept of Electrical Engg. CET
13.	National Seminar on Recent Trends in Technological Advancements	26-27, Nov 2004	Dept of Electrical Engg. CET
14.	Workshop on "Assessment and Evaluation of Courseware developed by NPTEL"-IIT	Nov 2004	IIT, Madras
15	Int. Conference on Coastal Environment,	May 19-21 2008	Wessex Institute of Technology,UK
16	Int. Conference on Mechanics, Materials and Management 2010		

11. Membership of Professional Bodies

- a)Member, Indian Society for Hydraulics
- b)Life member, Indian Society for Technical Education
- c)Member, Institution of Engineers (India)

12. Papers Published:

Total number of research papers published: 52

Sl.No.	Type of publication	No. of publications
1.	International Journal	14
2.	National Journal	7
3.	International Conference	13
4.	National Conference	18

Details of Papers published:

Sl. No	Title of Paper/Report	Author(s)	Name & Vol. of Journal & Year
1	Flow analysis over cascade of planes	Dr. J. Letha & Dr.B.S.Thandaveswara	5 th Congress Asia and Pacific Research Division IAHR, KOREA. 18-20 August 1986
2	Remote Sensing- An operational tool for Groundwater Resources Development	Dr. J. Letha & Sri.G.Anilkumar	National Seminar on Ground water Development in Coastal tracts, Jan 29-30 1988
3	Review of study on subsurface flow into drains	Dr. J. Letha & Dr. K. Elango	18 th Int. Conf. on Fluid Mechanics and Fluid Power, 1991, Vol. 1
4	Simulation of mildly unsaturated flow	Dr. J. Letha & Dr. K. Elango	Journal of Hydrology 154,1994
5	Soil Moisture Characteristics-	Dr. J. Letha & Dr. K. Elango	59 th R & D session, CBIP, New

	Experiment and Analysis		Delhi, 1994
6	Simulation of Alternate wetting and drying in unsaturated flow zones	Dr. J. Letha & Dr. K. Elango	10 th Int. Conf. on Computational methods in Water Resources, Vol. 1, 1994
7	Assessment of hysteresis in soils for a particular combined drainage cum sub irrigation system	Dr. J. Letha & Dr. K. Elango	National seminar on Water and Environment, 1994
8	Hysteresis in soils-Role of irrigation and drainage process	Dr. J. Letha & Dr. K. Elango	60 th R&D Session, Int. Conf. on Energy 2000, CBIP, Vol II, 1995
9	A scientific approach to aquatic management in estuaries	J. Letha	10 th APD Int. Conf., IAHR, 1996, Vol.1, Session 10
10	Modelling of soil moisture status under Check – basin irrigation	Dr. J. Letha & Dr. K. Elango	8 th ICID Int. Drainage workshop, Nov 1999
11	Experimental, Analytical & Numerical Modelling of Flow over side weir	J.Letha & Pratibha Rani	3 rd International R&D Conference, CBIP, New Delhi March 2000
12	Optimal design of water distribution networks – A comparative evaluation	Lekshmi M. S. & J. Letha	Proc. Of National Seminar on Interactive Integrated Tech. Advancement,2003
13	Computer aided cost effective design of water distribution network – A case study in Kerala	Sheeja & J. Letha	Journal of Institution of Engineers, Vol 84, Nov 2003
14	Distributed Dynamic Routing using Saint Vincent Equation a GIS approach	J. Letha, B. Thulasidharan Nair & Abhilash Pillai	Proc. of National Seminar on Integrated Water Resources Assessment Development and Management, Sep. 23-24, 2004
15	Irrigation Scheduling in a field using Water Balance Model	J. Letha, Lakshmi S.	Proc of National Seminar on Recent Trends in Technological Advancements, 26-27 Nov 2004
16	Water Balance Study of Pamba River basin	J. Letha, Reeba Thomas	Proc of National Seminar on Recent Trends in Technological Advancements, 26-27 Nov 2004
17	Interlinking of Rivers- An overview	J. Letha	Proc of National Seminar on Conservation and Management, Sep 23&24,2004
18	Watershed Information System for a typical river basin in Kerala	J.Letha & Chitra Vasu	6 th National Conference on Technological Trends Vol.1 25-26 Nov 2005
19	Water balance Study for Pamba Basin	J.Letha & Chitra Vasu	Proc. Of 18 th Kerala Science Congress 29-31 October 2005
20	Seawater intrusion into coastal aquifers-a case study	Deepthi Krishnan & J.Letha	Int. Conference on Coastal Environment, Wessex Institute of Technology, UK May 19-21 2008
21	Multi objective reliability based design of water distribution system	Deepthi,N,,Suja R & Letha,J	National seminar on Technological Trends-o9, Nov 6-7, 2009
22	A realistic pipe optimisation model for design of water distribution networks	Suja R & Dr. J.Letha	Proceedings of Int. Conference on Emerging Advances in Water resources, ASCE_India 2010 at IITM from Jan 5-7 2010

23	Performance evaluation of solutions generated by Single objective optimisation of water distribution networks by genetic Algorithms	Suja R , Deepthi, N & Dr. J.Letha	Proceedings of Int. Conference on Materials, Mechanics and Management, IMMM 2010 Jan 14-16 2010
24	Rehabilitation of Trivandrum water supply networks for improving its reliability	Suja R , Deepthi, N & Dr. J.Letha	Proceedings of Kerala Science Congress, 2010 January 29-31
25	An improved methodology for risk assessment of water distribution systems	Suja R , Ruxana S & Dr. J.Letha	Proceedings of Kerala Science Congress, 2009
26	Risk assessment of water distribution systems	Suja R , Ruxana S & Dr. J.Letha	Proceedings of National Conference on Technological trends 2009
27	Environmental status of a tropical lake system	A.M.Sheela, J.Letha, Sabu Joseph,	Environmental Monitoring and Assessment of Springer Netherlands, 10.1007/s10661-010-1658-2, 14-9-2010
28	Trophic state Index of a lake system using IRS Satellite imagery	A.M.Sheela, J.Letha, Sabu Joseph,	Environmental Monitoring and Assessment of Springer Netherlands, 177(1-4),575-592, DOI 10.1007,2010
29	Estimation of discharge of a lake basin and its effect on water quality	Sheela.A.M, Sabu Joseph, B.Thulasidharan Nair. & J.Letha	<i>Proceedings of the First Kerala Women's Science Congress</i> organized by Shakti and St. Teresa's College from 10-12 August 2010
30	Assessment of Environmental status of the Akulam-Veli Lake, Southern Kerala with special emphasis on Organised Recreational activities	Sheela.A.M, Sabu Joseph, & J.Letha	Proceedings of National Seminar on Emerging Trends in Environment and Development. Abstracts – p.p 40-41 Full Proceedings – p.p 126-133 08-10-2009
31	Distribution pattern and factors affecting heavy metals in a lake system	Sheela.A.M, Sabu Joseph, & J.Letha	Journal of Environmental Science and Engineering, National Environmental Engineering Research Institute (NEERI), Nagpur,2010
32	Identification of hot spot area of sediment contamination in a lake system using texture characteristics	Sheela.A.M, J.Letha & Sabu Joseph, Jobin Thomas	Journal of Environmental Science and Engineering, National Environmental Engineering Research Institute (NEERI), Nagpur,2010
33	Evaluation of lake water quality using multiple linear regression modelling	Sheela.A.M, J.Letha & Sabu Joseph	Pollution Research, EMI Internationals, Pune. ,2011
34	Spatio-temporal distribution of total organic carbon (TOC) in sediments of a tropical lake system and its impact on water quality	Sheela.A.M, J.Letha, Sabu Joseph & R.S. Baiju	Eco Chronicle, Society for Environment and Social Research, pp211-218, 2009

35	Influence of lake morphology on water quality	Sheela, A. M., Letha, J., Sabu Joseph, Justus, J., Sheeja, R. V. (2011)	". <i>Environmental Monitoring and Assessment</i> , Springer, Netherlands,2011
36	Computation of Physical Characteristics of a Lake System using IRS (P6-LISS-III) Imagery	Sheela, A. M., Letha, J., Sabu Joseph, Ramachandran, K.K., Manoj Chacko.	International Journal of Applied Earth Observation and Geoinformation, Elsevier,2011
37	Need for sustainable planning with respect to water quality and land use change"	Sheela, A. M., Letha, J., Sabu Joseph (2011)	Proceedings of NATCON 2011 organized by the College of Engineering, Trivandrum from 28-29 January 2011.
38	Assessment of Heavy Metal contamination in Coastal Lake sediments associated with Urbanisation, Southern Kerala, India	Sheela, A. M., Letha, J., Sabu Joseph (2012)	Jl. Of Lakes and Reservoir management, Taylor and Francis Group, 17(2) 97-112
39	Water quality Assessment of a tropical coastal lake system using multivariate cluster principal component and factor analysis	Sheela, A. M., Letha, J., Sabu Joseph (2012)	Jl. Of Lakes and Reservoir management, Taylor and Francis Group, 17(2) 143-159
40	Prediction of water quality of a lake system by relating Secchi disk depth and IRS P6 radiance data	Sheela, A. M., Letha, J., Sabu Joseph, Ramachandran, K. K. (2010)	Proceedings of 11 th National and 1 st International Conference on Technological Trends organized by the College of Engineering, Trivandrum from 25-27 November 2010
41	An investigation into the heavy metal burden of Akkulam–Veli Lake in south India	K.Swarnalatha, J.Letha &S. Ayoob	Environmental Earth Sciences, ISSN 1866-6280, Vol 68, No.3, 795-806
42	Detection of Extent of Sea Level Rise in a Coastal Lake System using IRS Satellite Imagery	A. M. Sheela, J. Letha, Joseph Sabu, K. K. Ramachandran & J. Justus	Water Resources Management An International Journal - Published for the European Water Resources Association (EWRA)
43	Geophysical Signatures of Seawater Intrusion along the Coastal Stretches of Trivndrum District	Sindhu G,Letha,Smitha &Rajesh Raghunath	Int. Conference on Advances in Materials. Mechanics &Management,2010,pp364-370
44	Hydrochemical Study for Dilineating seawater Intrusion	Sindhu G,Letha, &Rajesh Raghunath	Int. Conference on Advances in Controls,Computing &Communication,2010,pp 182-186
45	Groundwater Flow Modelling of Coastal Aquifers of Trivandrum	Asitha, Sindhu G, P.G. Jairaj Letha, &Rajesh Raghunath	National Conference on Technological Trends,2011,pp170-175
46	Detection of Extent of Sea Level Rise in a Coastal Lake System using IRS	A. M. Sheela, J. Letha, Joseph Sabu, K. K. Ramachandran & J. Justus	Jl. of Water Resources Management: Volume 27, Issue 7 (2013), Page 2657-2670

	Satellite Imagery		
47	Title: Identification of Si as an appropriate normaliser for estimating the heavy metals enrichment of an urban lake system	K.Swarnalatha, J.Letha	Journal of Environmental Management, 2013
48	Evaluation of Urban growth and expansion using Remote sensing and GIS	Dr.Suja.R , Dr.J.Letha , Jiji Varghese	International Journal of Engineering Research & Technology (IJERT) Vol. 2 Issue 10, October - 2013 ISSN: 2278-0181
49	Urgency for Sustainable Development in Coastal Urban Areas with reference to Weather pattern, Land use and water quality	Sheela A M , Letha Swarnalettha, Baiju, Divya Sankar	Environment and Monitoring Assessment, January 2014

Major Achievement during her tenure as Director Technical Education, Govt Of Kerala:

Responsible for implementing E-Governance with full capability in the Directorate of Technical education and other institutions under the directorate. Full responsibility in drafting the KTU ACT (Kerala Technological University ACT) for which ordinance has been issued in May 2014.

Other Achievements:

1) Instrumental in Establishment of TREST (Trivandrum Science and Technology Park) in the CET campus, 2) Up-gradation of all Polytechnics with Central Assistance, 3) Taking lead role as Project facilitator for TEQIP Phase II in eight Government Engineering Colleges and eleven Government Controlled Engineering colleges, 4) Community development Scheme implemented through polytechnics, 5) Responsible for signing MoU with **Mercedez Benz and BOSCH Rexforth Ltd.** for starting of Adv. Diploma Course in Automated Mechatronics in Govt. Engg. Colleges and starting **Centres of Excellency and centres of competency in Automated Mechatronics in Engg. Colleges and Polytechnics of the State.** 6) All Preliminary steps taken for starting an **M.Tech Course in Translational Engg. In collaboration with University of Columbia and University of Montreal** which is due to start in the month of August 2014.

Other Responsible positions held:;

Governing body Member of IIT Madras; Syndicate Member of CUSAT, Senate member of Kerala/Calicut/MG universities, Governing Body member of many Govt. Controlled Societies like LBS IHRD, KBPS (Keraal Books Publishing Society), C-APT, CCE-K Pollution Control Board etc. Member of Research Council for NATPAC and Chairman for Women Scientist Cell, KSCSTE . and Member in different national level Professional bodies

J. Letha