

Name**Benny Joseph****Educational Qualifications**

Degree	Institute / University	Year	% of Marks	Field of Specialization
Ph.D.	Anna University, Chennai	2004	-	Treatment potential of sewage farms and constructed wetlands for domestic sewage
M.Tech.	College of Engineering Tirvandram	1990	78%	Environmental Engineering
B.E.	Regional Engineering College. Trichy	1988	75%	Civil Engineering

Teaching Experience in graduate and postgraduate Engineering programs

College	Designation	Period
Vimal Jyothi Engineering College, Chemperi	Principal	April 2011 – Till date
Karunya University, Coimbatore	Professor	Nov 2010 – April 2011
International College of Engineering and Management, Muscat	HOD, Department of Health, Safety and Environmental Management	2008 Sep – 2010 Aug
College of Engineering, Guindy Anna University, Chennai	Assistant Professor	2006Aug – 2008Aug
Mepco Schlenk Engineering College, Sivakasi	Assistant Professor	2004 – 2006Aug
Mepco Schlenk Engineering College, Sivakasi	Selection Grade Lecturer	2001 – 2004
Mepco Schlenk Engineering College, Sivakasi	Senior Lecturer	1996-2001
Mepco Schlenk Engineering College, Sivakasi	Lecturer	1991-1996
Kumaraguru College of Technology, Coimbatore	Associate Lecturer	1990-1991

Publications

Text books

1. Benny Joseph “Environmental Studies - Simplified”, ISBN 13-978-93-5260-517-0, Edition 03, No of pages 245, McGraw-Hill Education India, New Delhi, 2017.
2. Benny Joseph “Environmental Science and Engineering”, ISBN 13-978-9-33-920552-2, Edition 01, No of pages 342, McGraw-Hill Education India, New Delhi, 2014.
3. Benny Joseph, “Constructed Wetlands and Sewage Farms”, ISBN: 978-3-8473-2740-0, Edition 01, No of pages: 156, Lambert Academic Publishing GmbH & Co. KG, Germany, 2012.
4. Benny Joseph, “Environmental Studies”, ISBN: 0070648131, Edition 02, No of Pages: 352, McGraw-Hill Education India, New Delhi, 2009.
<http://highered.mcgraw-hill.com/sites/0070648131/>
5. Benny Joseph, “Environmental Studies (for JNTU)”, ISBN: 0070634238, Edition 01, No of pages: 311, Tata McGraw-Hill Publishing Co. Ltd., New Delhi, 2006.
<http://www.mhhe.com/josephes/jntu>
6. Benny Joseph, “Environmental Science and Engineering”, ISBN: 0070601690, Edition 01, No of pages: 384, Tata McGraw-Hill Publishing Co. Ltd., New Delhi, 2006. <http://highered.mcgraw-hill.com/sites/0070601690/>
7. Benny Joseph, “Environmental Studies”, ISBN: 0070590923, Edition 01, No of Pages: 352, Tata McGraw-Hill Publishing Co. Ltd., New Delhi, 2005.
<http://highered.mcgraw-hill.com/sites/0070590923/>

(Pl refer appendix1 for more details of the books)

International Journals

1. Benny Joseph, N.K. Ambujam, S. Chandran, ‘Biochemical Oxygen Demand (BOD) removal modeling for constructed wetlands’, Environmental health, Journal of The Australian institute of environmental health(ISSN 1444-5212). Vol. 7 No. 4 2007, pp 14-21.

National Journals

1. Madhu TK, Biju Mathew and Benny Joseph 'Experimental Study on effect of short steel fibre reinforcement on laterized concrete' International Journal of Civil Engineering and Technology (ISSN Print: 0976-6308) Volume 7, Issue 4, (July-August 2016), pp. 393–399.
2. Biju Mathew, Freda Christy, Anuragi and Benny Joseph 'An experimental study on properties of cement mortar by replacement of natural sand with manufactured sand' International Journal of Civil Engineering and Technology (ISSN Print: 0976-6308) Volume 7, Issue 4, (July-August 2016), pp. : 0976-6308.
3. Biju Mathew, Freda Christy, Soumya and Benny Joseph 'Study on Strength of Concrete by Partial Replacement of Fine Aggregate with M-Sand and Laterite with Super plasticizers' International Journal of Engineering Trends and Technology (ISSN: 2231-5381), Volume 38, (Number 8- August 2016), pp. : 413-416.
4. LATERITE AS FINE AGGREGATE' International Journal of Engineering Trends and Technology (ISSN: 2231-5381), Volume 38, (Number 8- August 2016), pp. : 413-416.
5. Biju Mathew, Freda Christy and Benny Joseph 'Tensile strength characteristics of concrete using laterite as fine aggregate' International Journal of Social Science & Interdisciplinary Research (ISSN 2277-3630), Vol. 4 (4), (APRIL 2015), pp: 76-83.
6. Biju Mathew, Freda Christy and Benny Joseph 'Strength Performance of Concrete using Laterite as Sand Replacement' International Journal of Civil Engineering Research & Applications, Vol. 1 Issue 3, August - 2013 pp: 38-42.
7. Chandran S., Niranjana V and Benny Joseph 'Accumulation of heavy metals in Wastewater irrigated Crops in Madurai – Indian Journal of Environmental Research And Development (ISSN 0973-6921), Volume No.6, Issue No 3, (Jan-Mar 2012), pp 432-439.
8. Kumar Subramanian, Ganapathy Subramanian L. R., Benny Joseph and Venkatesan Jayaraman 'Mathematical Modeling and Simulation of Reciprocating Compressors – A Review of Literature' Mathematical Modeling and Applied Computing (ISSN 0973-6093) Volume 1 Number 1 (2010), pp. 81–96
9. Sarala Devi J., Benny Joseph, K. Karunakaran, B. Anurdha and K. Rama Devi 'People's attitudes towards paying for water' Current Science (ISSN: 00113891) November 2009, vol. 97, NO. 9, 10, pp 1296-1302.
10. S. Chandran, Benny Joseph and M. Karmgam 'Sewage farm, an effective means of wastewater treatment, disposal and reuse – A case study from Madurai city, India.', Indian Journal of Environmental research. July 2005, Vol 17(2), pp 247-254.
11. S. Chandran,, Benny Joseph, and Oliver Jayaprakash P, 'Traffic Noise modeling under heterogeneous conditions for Madurai city roads' Indian Journal of Environmental research. July 2005, Vol 17(2), pp 215-223.
12. Palanichamy.M.S., Benny Joseph and Chandran S. 'Adsorption kinetics of phenol controlled burnt wood charcoal system', Indian Journal of Environmental protection Aug.1994.

National Conferences

1. Chandralekha.S. & Benny Joseph “Better incinerator practices for Bio-medical waste disposal”, National seminar on Solid and Hazardous waste management strategies, Annamalai University Chidambaram. , October 22nd 2005
2. N. Aravind, Benny Joseph and Oliver P. Jayaprakash, “Application of Genetic Algorithm for concrete structure design optimization”, Proceedings of the SACOEFERENE, Nationath and 1 level conference, Dr. Sivanthi Aditanar College of Engineering, Tiruchendur, 18th and 19th August 2005
3. Benny Joseph and Oliver Jayaprakash, “Integrated Fleet & Trip distribution Model based on real time data acquisition”, National level Workshop on Recent developments in Science & Technology, Mepeco Schlenk Engineering College, Sivakasi on 31.10.2001.
4. Palanichamy.M.S. and Benny Joseph, Noise emission modelling for Madurai City - National Seminar on Infrastructure’2000 - Construction Industry Development council, New Delhi, March 5-6, 1999
5. Palanichamy.M.S., Benny Joseph, and Vincent P., Performance evaluation of a mineral water plant - National seminar on water resources management for sustainable development,, S.V University, Tirupathi. March 12-13, 1999
6. Palanichamy.M.S., Benny Joseph, Vincent P., Management and Performance assessment of an irrigation system - National seminar on water resources management for sustainable development, S.V. University, Tirupathi, March 12-13, 1999
7. Palanichamy.M.S., T. Sekar and Benny Joseph, ‘Use of high grade cements – an economic and strength characteristic analysis’, National seminar on Cement content and parameters for durability of concrete, Maharastra India chapter of ACI, Birla Krida Kendra, Mumbai, 25th and 26th September 1998.
8. Palanichamy.M.S., T. Sekar and Benny Joseph, Cellular building blocks from flyash and CEM powder industry waste, National workshop in Advances in cement, slag and pozzolanic materials in India, Dept of Civil Engg. Sri Venkateswara University, Tirupathi. , June 27th 1998
9. Palanichamy.M.S., T. Sekar and Benny Joseph, ‘Use of CEM powder industry waste in building blocks’ National seminar on Advances in construction technology, Nagpur, 19th and 20th June 1998.
10. Palanichamy.M.S., Benny Joseph, Oliver Jayaprakah, ‘Interactive Learning in Virtual Environment’ in 27th Convention of ISTE and National Seminar on ‘Global Interconnectivity for Technical Education in India’, Bhopal - 19 - 21, December, 1997.
11. Palanichamy.M.S. Vincent P. and Benny Joseph, ‘Integrated Watershed Management and wasteland development – a case study’, National conference on emerging trends in the development of sustainable groundwater sources (NCGWS-97), Jawaharlal Nehru Technical University, Hyderabad - 27,28 August, 1997.
12. Palanichamy.M.S., and Benny Joseph, User Perception Study on the Planning and Location of the New Bus Terminus at Virudhunagar - Tamil Nadu’ - National Convention of Civil Engineers at Institution of Engineers, Delhi - 16-18 October, 1997.

13. Palanichamy.M.S., Benny Joseph, Ariya Perumal and Karthikeyan P.A. 'Automation of initial setting time determination for cement using Ultrasonic pulse velocity measurements', 7th national symposium on Ultrasonic, Mepco Schlenk Engineering College, Sivakasi. Sep-1996

International Conferences

1. Chandralekha, S. and Benny Joseph "Biomedical Waste Management at Christian Medical College and Hospital (CMCH), Vellore, India – A Case Study," Twenty-First International Conference on Solid Waste Technology and Management, Department of Civil Engineering, Widener University, Philadelphia, PA, USA, March 26-29, 2006.
2. Chandran, S., S. Rajmohan, G. James Pitchai and Benny Joseph, "Reuse of urban wastewater for agriculture- Social perspectives and problems", 7th Global Conference on Environmental Education – "Environmental Education for Sustainable Development" Indian Environmental Society, , Hotel Holiday Inn, Agra, India, 19-23 September 2005.
3. Ambujam.N.K. and Benny Joseph, "Design of Constructed Wetlands with mixing cell concept" at International Conference on Coastal and Fresh water issues at Institute for ocean management, Anna University, Chennai on 9.12.2003
4. Palanichamy.M.S., Vincent P. and Benny Joseph, Wasteland Management - Role of Geosynthetics - A case study – Geosynthetics Asia'97 Bangalore – November 26th -29th - 1997.
5. Palanichamy.M.S., Benny Joseph and Moses Santhakumar S. Decentralisation of bus terminus for congestion reduction at Madurai City (Tamil Nadu) - A case study, - Proceedings of International conference on New challenges for Civil Engineers of developing countries in the 21st century (NCCDC-96), Jamia Millia Islamia - New Delhi – March 1st and 2nd – 1996

Membership in Professional Bodies

1. Life member of ISTE (LM9610)
2. Life member of Institution of Public Health Engineers (India) – LM1022
3. Life member of Acoustical Society of India – LM537
4. Member of Institution of Environmental Engineers (India)
5. Life member of International society for environmental protection.

Training programs organized

Sl.No.	Name of the Seminar / Conference	Duration	Purpose
1.	AICTE-ISTE, STTP on "Application of GIS and GPS in Cartography"	3 – 8 Jan. 2005	STTP for Engineering college faculty
2.	One day Workshop on "Professional Ethics"	08.04.04	Orientation for faculty handling the subject Professional Ethics

Student Projects Guided

B.E.

1. *A study of water quality around Ambatur industrial estate, Chennai – 2007*
 2. *Laboratory investigations on Anaerobic Baffled Batch Reactor (ABBR) for the treatment of textile and domestic waste – 2006*
 3. *Management of textile industry waste (Dyeing) – 2006*
 4. *Management of textile industry waste (Bleaching) – 2006*
 5. *Quarry dust as fine aggregate for concrete – 2006*
 6. *A study of mineral water consumption and wastage pattern in Mepco campus - 2005*
 7. *Use of Strychnos Potatorum as a coagulant in water treatment – 2005*
 8. *Prediction of ground water potential for Madurai district from rain fall data using ANN. – 2005*
 9. *Effect of water quality on setting time and strength of cement – 2005*
 10. *Ground water quality modeling for MEPCO campus – 2005*
 11. *Planning and design of a rural water supply scheme – 2005.*
 12. *BOD prediction from Electrical conductivity measurements – 2005*
 13. *Municipal Solid waste Management options for Sivakasi municipality – 2005*
 14. *Environmental impact assessment of unplanned sewage irrigation in Madurai City – 2004*
 15. *Low cost reverse osmosis system – 2003.*
 16. *Highway earthwork estimation software in VB – 2002*
 17. *Hi-tech low cost water purifier – 2001*
 18. *E-consultancy in civil engineering – 2001*
 19. *Knowledge based decision support system in Java for waste water reuse options – 2000*
 20. *Design of centrifuge building and cable trench for the Kondapalli power project, Andhara Pradesh – 1999*
 21. *Computer aided design of Library Building – 1999*
 22. *Traffic noise emission modeling for Madurai city- 1996-97*
 23. *Automation of initial setting time determination for cement using ultrasonic pulse velocity measurement technique- 1995-96*
 24. *Desalination of brackish ground water by freezing technique-1994-95*
 25. *Evaluation of settling characteristics of flocs formed by the precipitation of hardness using settling column - 1993-94*
 26. *Effect of polyelectrolytes on the removal of turbidity - 1990 -91*
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M.E.

1. *Corporate Environmental Management Systems for water conservation in agriculture – Sangeethavani (ME IWM) – 2006-2008*
2. *Life cycle assessment of ethanol and sugar production from sugarcane. – Ms. Viji (ME IWM) 2006-2008*
3. *Biomedical Waste Management, CMC Vellore a case study – S. Chandralekha (ME Industrial Safety) 2005 - 2006*

4. *Safety evaluation of a mineral water plant. – P. Newton (ME Industrial Safety) 2005 – 2006*

Guest lectures

Sl.No.	Topic and Occasion	Venue	Date
1.	Research problem formulation	Vimal Jyothi Engineering College, Chemperi, Kerala	19.02.2011
2.	“Water crisis – a few plausible solutions” in the Water Digest, Chennai seminar on “Paradigm shift in Water Treatment: Technologies for Water Related Problems and Cost Effective Solution”	Hotel Ambassador Pallava, Chennai	16.02.2007
3.	“Selection of pumps” in the training program on water supply system management for TWAD Board Engineers.	Anna Institute of Management, Chennai	04.12.2006
4.	Chaired the paper presentation session at the One day national conference on “Holistic water resources management” HOWARM-2006	B.S.Abdur Rahman Crescent Engineering College, Chennai	01.12.2006
5.	“Pipe leak detection methods” in the training program on water supply system management for TWAD Board Engineers.	Anna Institute of Management, Chennai	16.11.2006
6.	“Water treatment methods and techniques” in the training program on water supply system management for TWAD Board Engineers.	Anna Institute of Management, Chennai	31.10.2006
7.	“Wastewater reuse around the world” in the training program on waste water management -recycle and reuse for TWAD Board Engineers.	Anna Institute of Management, Chennai	28.09.2006
8.	“Code of Ethics” in an ISTE – AICTE sponsored Short term training programme on “Enhancing life skills and Ethical Values in Technical Education	Arasan Ganesan Polytechnic, Sivakasi	30.11.2004
9.	“Environmental Science and Engg.”	Syed Ammal Engg. College,	27.8.2004

Sl.No.	Topic and Occasion	Venue	Date
10.	“Environmental awareness” in the one day AICTE sponsored seminar.	Ramanathapuram Mookambigai college of Engg., Trichy	9.6.2004
11.	“Environmental management tools” in the Faculty development programme on Environmental Science & Engg.	Kongu Engg. College, Perundurai	3.6.2004
12.	Expert member in the committee for the establishment of Mineral Water Plant	Gandhi Gram University, Dindugal	Nov. to Dec. 2003 & Jan. to March 2004
13.	Environmental pollution	SFR Women’s College, Sivakasi	02.03.2004
14.	Sources on effects of pollution	Arasan Ganesan Polytechnic, Sivakasi	02.12.2003
15.	Environmental protection and sustainable development in connection with the world environment day celebrations- Guest lecture	Virudhunagar collectorate	5.6.2002
16.	Environmental Studies at Staff training centre for PWD	Thiagarajar College of Engineering, Madurai.	22.8.2002 and 21.9.2002

Research Projects

Sl.No.	Title	Total Cost	Sponsored by	Role in the Project	Duration
1.	Establishment of Industry Institute Partnership Cell (IIPC)	7.1 lakhs	AICTE	Industrial Officer	Liaison 2003-2006
2.	Establishment of Computer aided instructional resources production centre	5 lakhs	AICTE	Involved right from the proposal to completion	1997-2000

Subjects Taught

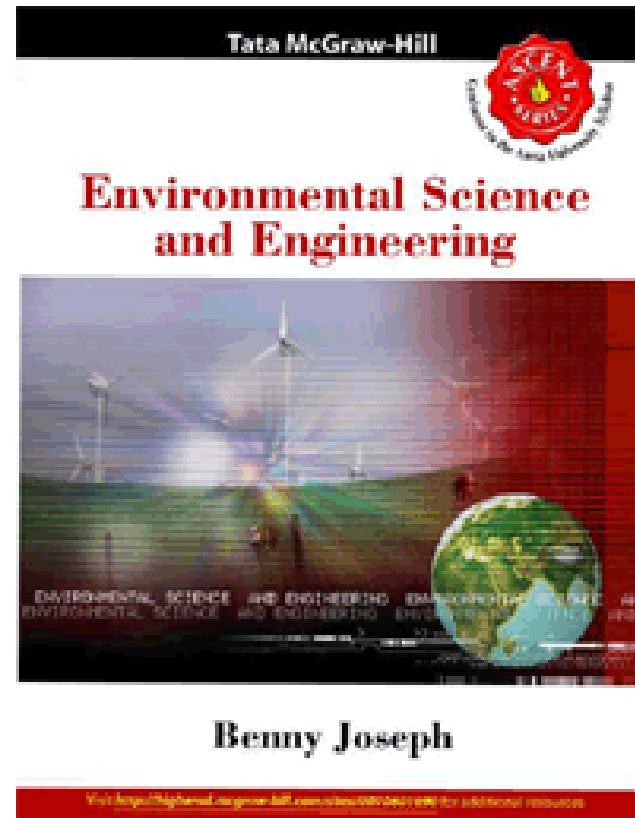
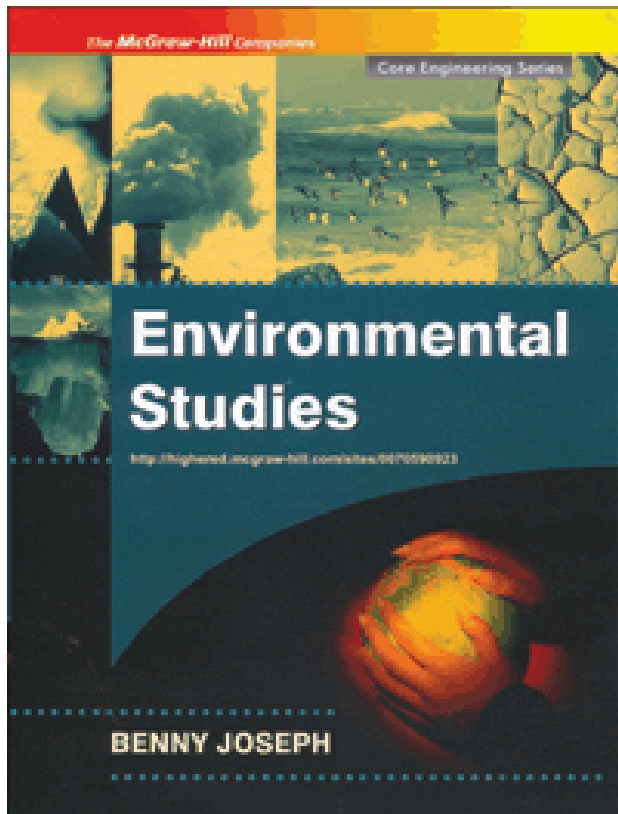
<i>Undergraduate</i>	<i>Postgraduate</i>
1. Water supply Engineering	1. Environmental safety
2. Sanitary Engineering	2. Integrated Water Resources Management
3. Air pollution management	3. Ecology and environmental impact assessment
4. Environmental Engineering	4. Advanced irrigation Engineering
5. Environmental Science and Engg.	
6. Construction Technology	
7. Engineering Sociology	
8. Professional Ethics	
9. Fluid mechanics	
10. Bioenergy resources technology	
11. Environmental Engineering Lab	
12. Fluid machinery lab	
13. Issues in Sustainability	

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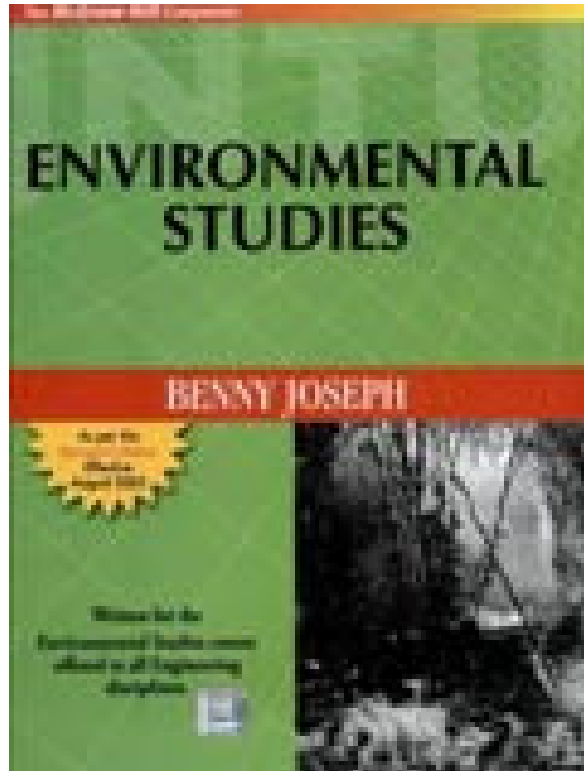
(Dr. Benny Joseph)

Appendix 1

Cover pages of books authored by Dr. Benny Joseph



CV of Benny Joseph



This thesis analyses the working of sewage farms and brings out its similarities with constructed wetlands in its functioning as a low-cost waste treatment and resource recovery facility. A mathematical model is developed for evaluating the treatment potential of sewage farms/constructed wetlands for the BOD removal by assuming it as made up of a number of continuous flow stirred tank reactors (CFSTRs) in series. In order to improve the accuracy of predictive equations, provisions were made to take into account the effect of evaporation and evapotranspiration losses. The proposed model was validated against measured values of BOD removal from a constructed wetland at Listowel, Canada (summer) and compared with the simulated results using the other models such as USEPA (1988), Chen et al. (1999) and Vogeler and Scherfig (2000). In order to further ascertain the validity of the proposed model it is applied for the sewage farm from a typical south Indian city of Madurai. In the light of the available literature and the findings from the present study, a design procedure and guidelines are proposed for the design of sewage farms/constructed wetlands at the end of the study.

Sewage farms and constructed wetlands



Benny Joseph

Sewage farms and constructed wetlands

TREATMENT POTENTIAL OF SEWAGE FARMS AND CONSTRUCTED WETLANDS FOR DOMESTIC SEWAGE



Benny Joseph

Benny Joseph is a civil engineer specialized in environmental engineering. He has a combined experience of 21 years in teaching, research and academic leadership in engineering education. Currently he is working as the principal of Vimal Jyothi Engineering College, Chemperi, India. The author can be reached at bennyjosephk@gmail.com.



978-3-8473-2740-0

Benny Joseph



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 - ✓ 35 Short Answer Questions.
 - ✓ 136 Glossary of technical terms frequently used in Environmental Science

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- ✓ Short answer questions: 115
- ✓ Glossary of technical terms frequently used in Environmental Science: 208

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