

Dr. (Mrs.) J. Brema, FIE., MIWRS
Professor
Department of Civil Engineering,
Karunya Institute of Technology and Sciences,
(Deemed-to-be-University)
Coimbatore - 114.

Email id: bjayanarayanan@yahoo.co.in
bjayanarayanan@gmail.com

Mobile No.:6381559630

ORCID ID:0000-0002-5352-1112

1.Professional Experience : 22 years Teaching in Engineering

Teaching Experience : Post Graduate (Environment and Water Resources) and
Undergraduate courses of Civil Engineering

Administrative Experience : Programme Co-ordinator, Principal, Head of the
Department

Details of Publications:

Scopus-Indexed Journals: 20

1. **Brema. J,** T S Rahul and James Jesudasan Julius, Study on Drought monitoring based on Spectral Indices in Noyyal river sub-watershed using Landsat – 8 Imageries, Springer Series in Geomechanics and Geoengineering, Print ISBN: 978-3-319-77275-2, Electronic ISBN: 978-3-319-77276-9, Springer Nature 2019, pp.473 – 482.
Doi:https://doi.org/10.1007/978-3-319-77276-9_42
2. Anie John. S and **Brema. J,** “Analysis of Rainfall by Intensity-duration-frequency (IDF) curves for Vamanapuram River Basin”, International Journal of Civil Engineering and Technology, ISSN 0976-6308, ISSN online:0976-6316 Vol.9, No.7 (July 2018), pp. 403 – 411.
3. Anie John. S and **Brema. J,** “ Rainfall analysis by Man-Kendall test for Vamanapuram Basin, Kerala International Journal of Civil Engineering and Technology, ISSN 0976-6308, ISSN online:0976-6316 Vol.9, No.13 (December 2018), pp.
4. James Jesudasan Julius, Dhramaveer Singh and **Brema. J.,** Morphometric Analysis of Linear and Areal Aspects of Bhagirathi River Basin- A GIS Approach,

Proceedings of the 2nd International Conference on Communication and Electronics Systems (ICCES 2017) IEEE Xplore Compliant - Part Number:CFP17AWO-ART, ISBN:978-1-5090-5013-0, pp.549-554, October 2017.
<https://doi.org/10.1109/cesys.2017.8321138>, 19 - 20 oct 2017

5. Minnu K Benny and Brema J., Development of Intensity Duration Frequency (IDF) curves for Upper and Lower Kuttanad, Kerala in the Journal International Journal of Engineering and Advanced Technology, ISSN: 2249-8958, vol.8, issue. 2S2, pp. 348 – 350, Febraury 2019,
6. Tamilarasan A and **Brema J.**, Assessment of soil erosion in Siruvani watersheds based on USLE and hypsometric curve methods, International Journal of Innovative Technology and Exploring Engineering, ISSN: 2278-3075 Vol.8, Issue-6S4, April 2019, pp.891-894. DOI: 10.35940/ijitee.F1181.0486S419
7. Shaina Beegam N., Prince Arulraj G. and **Brema.J.**, An Examination of Landuse and Landcover changes in Muvattupuzha River Basin using GIS, International Journal of Recent Technology and Engineering , ISSN:2277-3878, vol8. No.3, September 2019. Pp. 7957 – 7960
8. Koshy P.S., Prince Arulraj G. and **Brema.J.**, Development of an ANN model to simulate the auxiliary power generation from an irrigation barrage, International Journal of Engineering and Advanced Technology, ISSN:2249-8958, Vol.9. No.1, October 2019. Pp. 1033 – 1039.
9. Samuel Thanaraj, Freeda Christy and **Brema J.**, Analysis on the performance of Stone columns with different materials in soil stabilization, International Journal of Engineering and Advanced Technology (IJEAT) - ISSN: 2249-8958, Volume-8, Issue-3S, February 2019, pp. 148 – 153.
10. P S Koshy, G.Prince Arulraj and **J.Brema**, Development of Fuzzy rule based (FRB) Model to simulate power generation in a Cascade Hydropower system in the Journal International Journal of Engineering and Advanced Technology, ISSN: 2249-8958, Vol.8, issue 5. June2019, pp.2763 – 2768
11. Dhivya Shree, **Brema.J.**, Assessment of water quality and parameters leading to eutrophication in an urban waterbody in the Journal International Journal of

Innovative Technology and Exploring Engineering, ISSN: 2278-3075 Vol.8, Issue-7C2, May 2019, pp.248-251

12. **Brema. J** and Ajish Ajoel Abraham, “Energy efficiency analysis of an existing building in a semi-arid region”, Journal of Ecology, Environment and Conservation, 2018, pp.S195 – S201, ISSN 0971 – 765X
13. **Brema. J**, J Santhosh Kumar, Prathibha.K and TS Rahul, Vibration Measurement of a Steel Bridge Using Smart Sensors: Deployment and Evaluation, Springer Series in Geomechanics and Geoengineering, Print ISBN: 978-3-319-77275-2, Electronic ISBN: 978-3-319-77276-9, Springer Nature 2019, pp.483 – 491. Doi: https://doi.org/10.1007/978-3-319-77276-9_43
14. **Brema. J.**, Prathibaa. K. and Ajish Joel Abraham, “Improving sustainability of a building based on Orientation and wind velocity – a case study using CFD”, International Journal of Civil Engineering and Technology, Vol.8, Issue. 7, July 2017, pp.232-240.
15. Sneha Sanjay, Biju Koottala, Amjad Alokeh and **Brema J.**, Enhancment of Estidama Pearl Rating of a Retail Store and Energy Centre Using Sustainable Solutions, International Journal of Innovative Technology and Exploring Engineering (IJITEE) - ISSN: 2277-3075, Volume-8, Issue-7C2, May 2019, pp. 230 - 234
16. Vadivel, M and Brema, J., Experimental Study on Performance of Hybrid fibre Reinforced Concrete using Steel, Polypropylene and Recycled Polyethylene Terephthalate Fibre, International Journal of Advanced Science and Technology, 29 (05), 2020, ISSN: 2005 – 4238, pp. 10733 – 10739
17. Wilsha R.W., Prabhakaran, C.K., Brema, J. and James, E.J., Evaluation of Coastal Vulnerability Index for the Kerala coast, Journal of Critical Reviews, ISSN: 2394-5125, 7 (09), 2020, pp.2554 – 2565.
18. Vadivel, M and Brema, J., Flexural Behaviour of Hybrid Fiber Reinforced Concrete Beams under Cyclic Loading, International Journal of Advanced Science and Technology, 29 (05), 2020,ISSN: 2005 – 4238, pp. 10740 - 10749
19. Sumantha Esther Priestly, Kumudha Raimond and Brema, J., Machine Learning Techniques for Weather Prediction: A Review, International Journal of Advanced Science and Technology, 29 (03), 2020, ISSN: 2005 – 4238, pp. 12188 – 12204.

20. Koshy P.S., Prince Arulraj, G., Brema, J., Characterisation of Catchment Yield Co-efficient for a Downstream Reservoir in a Cascade Sytem, Journal of Critical Reviews, ISSN: 2394-5125, 7 (19), 2020, pp.46262 – 4632.

Web of Science Journals: 3

1. SnehaGautam, Brema.J ., Spatio-temporal variation in the concentration of atmospheric particulate matter: A study in fourth largest urban agglomeration in India , Environmental Technology and Innovation, vol.no.17, 2020, pp. 1 -11.
2. Sneha Gautam * , Brema J., Dhasarathan R., Spatio-temporal estimates of solid waste disposal in an urban city of India: A remote sensing and GIS approach., Environmental Technology and Innovation, vol.no.18, May 2020 pp. 1 -12.
3. Kalpana, P., Parthiban, S., Gopinathan, P., Subramani, T., Roy, P.D., Sneha Gautam and Brema, J., Spatio-temporal estimation of rainfall patterns in north and northwestern states of India between 1901 and 2015: change point detections and trend assessments. Arabian Journal of Geosciences, **13**, 1116 (2020).

National Journals: 4

1. **Brema. J** and G. Prince Arulraj, “Assessment of Ground water Quantity and Quality in Coimbatore District” published in National Journal “ The Icfai University Journal of Soil and Water Sciences” Vol. II, No. 2, May 2009 pp no. 50-65.
2. Prince Arulraj.G, **Brema. J** and Devadass.C.S.C., “Identification of Locations Suitable for Urban Development using GIS” Published in the Karunya Journal of Research, Volume 2, issue 1, pp. 15 -22.
3. **Brema. J.** and Prince Arulraj G., ‘Runoff Estimation for Small catchments using GIS’ in the Journal of Applied Hydrology, JAH, Vol. XXI, No. 1&2, 2008, pp. 144 – 152.
4. **Brema. J.** and Prince Arulraj G., ‘A Decision Support System for developing an optimal cropping pattern in Noyyal river basin, TamilNadu’ in the Journal of Research in Science and Technology, Vol. 2, No. 2, 2013, pp. 1 – 15. ISSN 2277-1174

International Journals: 17

1. **Brema. J** and Prince Arulraj. G, “Assesment of Groundwater Quantity in Noyyal River Basin Using GIS” published in International Journal “ECO-CHRONICLE” Vol.3, No.4, December 2008, pp.295-300, ISSN:0973-4155.
2. **Brema. J** and Prince Arulraj. G, “Identification of Suitable Sites for Artificial Recharging in Noyyal River Basin” published in International Journal “ECO-CHRONICLE” Vol.4, No.1, March 2009, pp.17-26, ISSN: 0973-4155.
3. Prince Arulraj G., Chinku Alphons Tom and **Brema. J.**, ‘Semi-self Compacting Concrete – an innovative material’ in the Journal of Advanced Engineering Informatics, Vol. 35(2011), May 2011 pp no. 2964-2968.
4. **Brema. J** and Prince Arulraj. G, “Identification of Suitable Sites for Artificial Recharging and Groundwater Flow Modelling in Noyyal River Sub-basin using Remote Sensing and GIS ” International Journal of Sustainable Development, Vol. 3, No. 8, 2012, pp. 45 – 58.
5. **Brema. J.**, Arun S., Rejeesh and Manoj Ambadi, “Study of rainfall variation with respect to landuse change – Noyyal basin” International Journal of Earth Sciences and Engineering, Vol. 8, No.2, April 2015, pp. 540 – 543
6. **Brema. J.**, “Performance of different types of stone columns in soil stabilization – a review”, IJETSR, ISSN 2394-3386, September 2015.
7. Jagadeesha C J, **Brema. J** and James E J, “Large Irrigation projects water reservoir performance assessment with the use of remote sensing and hedging rules – a new concept”, International Journal of Emerging Research in Management and Technology, ISSN 2278 – 9359, Vol.5, No.1, pp. 95 – 101, January 2016. ISRA IF:1.492
8. Jagadeesha C J, **Brema. J** and James E J, “Water Reservoir Performance analysis and revised capacity requirements using standard operating policy and sequent peak algorithms, International Journal of Emerging Research in Management and Technology, ISSN 2278 – 9359, Vol.5, No.1, pp. 95 – 101, January 2016. ISRA IF:1.492
9. Jagadeesha C J, **Brema. J** and James E J, “Satellite data based main system management of reservoir water in multi-purpose projects”, International Journal of Civil Engineering Research, ISSN 2278 – 3652 , Vol.7, No.1, 2016, pp. 41 – 49

10. **Brema. J** and Julia Hauzinger, “Estimation of Erosion in Cauvery Watershed (TamilNadu and Karnataka) using USLE”, IOSR Journal of Environmental Science, Toxicology and Food Technology, Vol.10, Issue 2, ISSN 2319-2399, December 2016, pp. 1-11. AQCI IF:3.462
11. **Brema. J.** and Ajish Joel, “Renovation of existing building to sustainable-barrier free building”, International Journal of Advanced Research Methodology in Engineering and Technology, Vol. 1, Issue 3, pp. no. 200 – 206, May 2017.
12. Joseph Davis, **Brema. J** and Rajalakshmy P., “Increasing the plant metabolism in polyhouse farming using colour filters”, International Journal of Innovative research and Advanced Studies, Vol.4, No.5, pp.160-165, May 2017. ISSN:2394-4404 copernicus index
13. Anie John. S and **Brema. J**, “Development of a Rainfall-Runoff model for Vamanapuram River Basin”, International Journal of Applied Engineering Research, ISSN 0973-4562, Vol.13, No.5 (2018), pp. 2831-2837.
14. Janet Joseph and **Brema. J.**, Morphometric Analysis of Mandakini Basin using Geospatial Techniques, International Journal of Engineering and Advanced Technology, ISSN: 2249-8598, Vol.7, pp.243-246, 2017.
15. Challa Divya Sri and **Brema. J.**, Assessment of WaterQuality Index of Panipat District, Haryana, International Journal of Engineering and Advanced Technology, ISSN: 2249-8598, Vol.7, pp.238-242, 2017.
16. R. V. Dhivya Shree and **J.Brema.**, A Review on Removal of Heavy Metals from Contaminated Water using Hydroponics Technique, International Journal of Science and Research (IJSR) ISSN: 2319-7064 Pp, 589 – 592 Paper ID: ART20198556 10.21275/ART20198556
17. Brema J, Minnu K Benny, State-of-Art Review on Assessment of Surface water and Groundwater in a Sub-watershed Using ArcSWAT, International Journal of Research in Advent Technology, Vol.7, No.6, June 2019 E-ISSN: 2321-9637 , pp 110 – 115. Ugc approved journal, doi: 10.32622/ijrat.76201930