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Curriculum Vitae of Dr. B. Munwar Basha

Date of Birth : 9th April 1979
Current Designation : Assistant Professor
Area of Specialization : Geotechnical Engineering
Affiliation : Civil Engineering Department, Indian Institute of Technology Hyderabad (IITH), ODF Estate, Yeddumailaram 502205, Andhra Pradesh, India

Employment History

1. Assistant Professor [03 July 2013 - Present]
   Department of Civil Engineering
   Indian Institute of Technology, Hyderabad (**IITH**), Andhra Pradesh, India
2. Visiting Faculty [01 May 2014 – 30 June 2014]
   Department of Civil & Environmental Engineering, University of Illinois at Urbana Champaign (**UIUC**), USA
   Department of Civil and Materials Engineering, University of Illinois at Chicago (**UIC**), USA
3. Assistant Professor [11 May 2010 – 02 July 2013]
   Department of Civil Engineering
   Indian Institute of Technology Delhi (**IITD**), Hauz Khas, New Delhi.
4. Post-Doctoral Fellow [July 2009 - May 2010]
   Department of Civil Engineering
   Indian Institute of Science (**IISc**) Bangalore, Bengaluru, Karnataka, India.

Education

- **Ph.D:** (Geotechnical Engineering, Department of Civil Engineering), 2004-2009, Indian Institute of Science, Bangalore, CPI: 7/8, degree awarded on 7th July 2009.
  - Honors received: (1). **Prof. N. S. Govinda Rao Gold Medal for the Best Ph.D Thesis** in the department of Civil Engineering at IISc for the year 2008 – 2009 and (2). **Ph.D thesis synopsis** was published in **Geotechnique** journal
- **M.Tech:** (Geotechnical Engineering, Department of Civil Engineering), Indian Institute of Technology Kanpur (IITK), 2002-2004, First Class with Distinction, CGPA: 9.03/10
- **B.Tech:** (Civil Engineering), Jawaharlal Nehru Technological University (JNTU) College of Engineering, Anantapur, Andhra Pradesh, India, 1997-2001, First Class with Distinction, Marks: 82.60%
  - Honor received: **Vellanki Rama Rao Memorial Gold Medal Award** for bagging University First Rank in the Civil Engineering Department of all constituent colleges of Jawaharlal Nehru Technological University for the batch 1997-2001.
- **Intermediate Examination:** (Maths, Physics, Chemistry: M.P.C), Government Junior College for Boys, New Town, Anantapur, Andhra Pradesh, India, 1994-1996, First Class with Distinction, Marks: 85%.
- **Secondary School Certificate:** (S.S.C), Government High School for Boys, New Town, Anantapur, Andhra Pradesh, India, 1994, First Class with Distinction, Marks: 80.5%.

Recognitions

1. International Editorial Review Board Member of **International Journal of Geotechnical Earthquake Engineering (IJGEE)**
2. **DST Fast-Track Scheme for Young Scientist award** for the project proposal titled "Vertical Expansion of Existing Municipal Solid Waste (MSW) Landfills using Retention Systems" submitted to Science and Engineering Research Council (SERC), Department of Science & Technology (DST), Ministry of Science & Technology, Government of India (total budget of Rs. 13,36,000/-).
3. Recipient of **"Outstanding Young Faculty Fellow in the area of Engineering for the year 2011"** at IIT-Delhi sponsored by Kusuma Trust. (Kusuma Trust, Gibraltar fellowship provides to the incumbent ("Fellow") honorarium per month for a period of 2 to 5 years)
4. **Excellent Paper Award** received by *International Association for Computer Methods and Advances in Geomechanics (IACMAG)* for the following paper published in ASCE.

   G L Sivakumar Babu and **B. Munwar Basha** (2008). Optimum design of cantilever retaining walls using target reliability approach. **International Journal of Geomechanics, ASCE, 8(4): 240-252.**
5. **Best Paper Award** received for the paper "*Linear and Quadratic Functions to Evaluate Seismic Active Earth Pressure Considering Strain Localization Effect*" presented in **3rd Young Geotechnical Engineers Conference (3IYGEC)**, held on March 25 – 26, 2011, organized by Indian Geotechnical Society, Delhi chapter in association with Central Road Research Institute (CRRI), New Delhi, India.
6. The Synopsis of my Doctoral thesis has been cited in Geotechnique journal,

   Reference: **B. Munwar Basha** (2011). Optimum design of retaining structures under static and seismic conditions: a reliability-based approach, Ph.D Theses 2010, **Geotechnique, 61(1): w1-w6.**
7. **Prof. N. S. Govinda Rao Gold Medal for the Best Ph.D Thesis** in the department of Civil Engineering at IISc Bangalore for the year 2008 – 2009. This Medal was presented on IISc's Founder's Day which was celebrated on 3rd March 2010.
8. **Vellanki Rama Rao Memorial Gold Medal Award for bagging University First Rank** in the Civil Engineering Department of all constituent colleges of Jawaharlal Nehru Technological University for the batch 1997-2001.
9. Government of India scholarship for pursuing doctoral program at IISc Bangalore from 2004 to Apr 2010.
10. UGC-GATE Fellowship, IIT Kanpur during M. Tech. 2002-2004.
11. Secured First position in M.Tech first and second semester examinations in IIT Kanpur.
12. Qualified GATE – 2002 examination with 95.93 percentile (All India Rank: **282**).
13. Secured Rank of **2976** in Engineering and Medical Common Entrance Test (EAMCET - 1997) exam in Andhra Pradesh.
14. Secured **First Rank** in Govt. High School at S.S.C. level.

Research Interests

- Computational Geomechanics,
- Reliability Based Design in Geotechnical & Geoenvironmental Engineering
- Municipal Solid Waste Landfills
- Soil Dynamics and Earthquake Resistant Design of Retaining Structures
- Rock Mechanics

Expertise

- Optimum design of Municipal Solid Waste (MSW) Landfills
- Influence of strain localization and phase change on the seismic design of earth retaining structures.
- Seismic design of bridge abutments, and reinforced earth retaining structures.
- Reliability based design optimization and its application to conventional retaining walls, sheet pile walls and Geosynthetic reinforced soil structures.
- Load Resistance Factor Design (LRFD) of bridge abutments under seismic loading using pseudo static and pseudo dynamic method.
- Design of rock slopes against planar and wedge failures

List of Publications

Table 1. Statistics of total number of publications

Particulars	Number
Edited Proceedings	2
Contributed chapters in Text books	1
Published International Journal Refereed Publications	21
ASCE Geotechnical special publications	11
Under review	3
National and International Conference papers	19
Under review	2
Total number of publications	**54**
Under review	**5**

Citation Overview (Google Scholar)

Total number of citations	198
h-index (Scopus)	6
h-index	9
i10-index	9

Edited Books / Proceedings / Contributed Chapters

1. Ravi Sundaram, **B. Munwar Basha**, Bappaditya Manna and R Ayothiraman (2011). ***Proceedings of Third Young Geotechnical Engineers Conference (3IYGEC)***, March 25 - 26, Central Road Research Institute, New Delhi, India.
2. **B. Munwar Basha** (2010). ***Global Geoenvironmental Engineering Challenges***. Proceedings of First US-India Workshop, November 7, New Delhi, India. (Organized by Prof. Krishna Reddy, Prof. Manoj Datta, Dr. G V Ramana, and Prof. G L Sivakumar Babu)

3. Contributed Chapter "Appendix 12C: Structural Design of Shallow Foundations" in the book **Kameswara Rao N. S. V.** (2011). ***Foundation Design: Theory and Practice***. John Wiley & Sons, pp: **514 – 588**. (Asia, Pte Ltd. ISBN: 978-0-470-82534-1) (75 pages)

International Journal Papers under review

1. B Munwar Basha, Krishna R Reddy, Naveen S Parakalla. (2014). Effect of Increased Moisture Content on Long Term Compressibility Behavior of Orchard Hills Landfill, USA. Submitted for possible publication in **Geotechnical and Geological Engineering**, An International Journal, Springer Netherlands.

ASCE GSP's under review

1. B. Munwar Basha, Chandrakanth K, Arif Ali Baig Moghal (2014). Allowable Bearing Capacity of Strip Footings on Jointed Rock Masses: A Reliability Based Approach. **ASCE Geotechnical Special Publication** *(The 2015 International Foundations Congress & Equipment Exposition, IFCEE 2015, JW Marriott, in San Antonio, Texas, March 17-21, 2015*). (GSP 268, Full paper submitted)
2. B. Munwar Basha, Shilpi Mahapatra, Bappaditya Manna (2014). Optimum Dimensions of Reinforced Soil Berm for Vertical Expansion of Municipal Solid Waste (MSW) Landfills. **ASCE Geotechnical Special Publication** *(The 2015 International Foundations Congress & Equipment Exposition, IFCEE 2015, JW Marriott, in San Antonio, Texas, March 17-21, 2015*) (GSP 269, Full paper submitted)
3. B. Munwar Basha, Shilpi Mahapatra, Bappaditya Manna (2014). Allowable Design Strength of Geosynthetic Reinforcement for Veneer Stability of MSW Landfills: A Reliability Based Approach. **ASCE Geotechnical Special Publication** *(The 2015 International Foundations Congress & Equipment Exposition, IFCEE 2015, JW Marriott, in San Antonio, Texas, March 17-21, 2015*) (GSP 271, Full paper submitted).

International Journal Referred Publications

1. **B. Munwar Basha** and G L Sivakumar Babu (2014). Reliability-based load and resistance factor design approach for external seismic stability of reinforced soil walls. **Soil Dynamics and Earthquake Engineering 60: 8-21**
2. Deepankar Choudhury, Amey Deepak Katdare, Sanjay Kumar Shukla, **B. Munwar Basha** and Priyanka Ghosh (2014). Seismic behavior of earth retaining structures, design issues and requalification techniques. **Indian Geotechnical Journal June 2014, Volume 44(2): 167-182.**
3. **B. Munwar Basha** and G L Sivakumar Babu (2013). Reliability based LRFD approach for external stability of reinforced soil walls in **Indian Geotechnical Journal, 43(4): 292-302.**
4. **B. Munwar Basha** and G L Sivakumar Babu (2012). Target reliability based optimization for internal seismic stability of reinforced soil structures in **Geotechnique, 62(1): 55-68.**
5. **B. Munwar Basha** and G L Sivakumar Babu (2011). Seismic reliability assessment of internal stability of reinforced soil walls using pseudo-dynamic method. **Geosynthetics International, 18(5): 221-241.**
6. **B. Munwar Basha** and G L Sivakumar Babu (2011). Reliability based earthquake resistant design for internal stability of reinforced soil structures in **Geotechnical and Geological Engineering, 29(5):803-820.**
7. **B. Munwar Basha** and P. K. Basudhar (2010). Pseudo Static Seismic Stability Analysis of Reinforced Soil Structures. **Geotechnical and Geological Engineering, 28(6): 745-762. (Citation: 2 times)**

8. **B. Munwar Basha** and G L Sivakumar Babu (2010). Reliability Assessment of Internal Stability of Reinforced Soil Structures: A Pseudo-Dynamic Approach. **Soil Dynamics and Earthquake Engineering, 30(5): 336 - 353. (Citation: 2 times)**
9. **B. Munwar Basha** and G L Sivakumar Babu (2010). Optimum Design for External Seismic Stability of Geosynthetic Reinforced Soil Walls: A Reliability Based Approach. **Journal of Geotechnical and Geoenvironmental Engineering ASCE, 136(6): 797-812. (Citation: 1 time)**
10. **B. Munwar Basha** and G L Sivakumar Babu (2010). Optimum Design of Bridge Abutments under High Seismic Loading using Modified Pseudo-Static Method. **Journal Earthquake Engineering,** Taylor & Fransis. **14(6): 874 – 897.**
11. **B. Munwar Basha** and G L Sivakumar Babu (2010). Optimum Design of Bridge Abutments under Seismic Conditions: A Reliability Based Approach. **Journal Bridge Engineering ASCE, 15(2): 183-195.**
12. **B. Munwar Basha** and G L Sivakumar Babu (2010). Seismic Rotational Displacements of Gravity Walls by Pseudo-Dynamic Method with Curved Rupture Surface. **International Journal of Geomechanics ASCE 10(3): 93 – 105. (Citation: 2 times)**
13. **B. Munwar Basha** and G L Sivakumar Babu (2010). Load and resistance factor design (LRFD) approach for the reliability-based seismic design of bridge abutments. **Georisk: Assessment and Management of Risk for Engineered Systems and Geohazards. 4(3): 127 – 139.**
14. **B. Munwar Basha** and G L Sivakumar Babu (2010). Analysis of passive earth pressure and displacements of retaining wall using pseudo-dynamic approach. **International Journal of Geotechnical Earthquake Engineering (IJGEE), 1(1): 88 - 109.**
15. **B. Munwar Basha** and G L Sivakumar Babu (2009). Earthquake resistant design of reinforced soil structures using pseudo-static method. **American Journal of Engineering and Applied Sciences, 2 (3): 565-572.**
16. **B. Munwar Basha** and G L Sivakumar Babu (2009). Seismic reliability assessment of external stability of reinforced soil walls using pseudo-dynamic method. **Geosynthetics International. 16 (3): 197 - 215.**
17. **B. Munwar Basha** and G L Sivakumar Babu (2009). Computation of sliding displacements of bridge abutments by pseudo-dynamic method. **Soil Dynamics and Earthquake Engineering, 29(1): 103 - 120. (Citation: 4 times)**
18. G L Sivakumar Babu and **B. Munwar Basha** (2008). Optimum design of cantilever retaining walls using target reliability approach. **International Journal of Geomechanics, ASCE, 8(4): 240-252. (Citation: 12 times)**
19. **B. Munwar Basha** and G L Sivakumar Babu (2008). Target reliability based design optimization of anchored cantilever sheet pile walls. **Canadian Geotechnical Journal, 45 (3): 535-548. (Citation: 2 times)**
20. G L Sivakumar Babu and **B. Munwar Basha** (2008). Optimum design of cantilever sheet pile walls in sandy soils using inverse reliability approach. **Computers and Geotechnics. 35(2): 134-143. (Citation: 7 times)**
21. **B. Munwar Basha** and P.K. Basudhar (2005). Pseudo-Static seismic stability analysis of geosynthetic-reinforced soil retaining walls. **Indian Geotechnical Journal. 35(3): 323 - 348. (Citation: 1 time)**

ASCE Geotechnical Special Publications:

22. Arif Ali Baig Moghal, Syed Abu Sayeed Mohammed, **B. Munwar Basha** and Mosleh Ali Al-Shamrani (2014). Surface complexation modeling for stabilization of an industrial sludge by alternate materials. **ASCE Geotechnical Special Publication, 234: 2235-2244** *(In Geo-*

Characterization and Modeling for Sustainability, GEO-CONGRESS Atlanta, Georgia, February 23-26, 2014).

23. **B. Munwar Basha** and Arif Ali Baig Moghal (2013). Load Resistance Factor Design (LRFD) Approach for Reliability Based Seismic Design of Rock Slopes against Wedge Failures. **ASCE Geotechnical Special Publication, 231: 582-591** *(In Design, Analysis and Performance of Rock Slopes and Rock Fill,* Geo-Congress 2013 San Diego, California, USA, on March 3-6, 2013).
24. **B. Munwar Basha** and Shilpi Mahapatra (2013). Reliability Based Design of Municipal Solid Waste (MSW) Landfills using Translational Failure Analysis. **ASCE Geotechnical Special Publication, 231: 1034-1043** (In Design and Analysis Methods: Reliability Analysis and Reliability Based Design for Earth and Rock Slopes,Dams and Levees, Geo-Congress 2013 San Diego, California, USA, on March 3-6, 2013)
25. **B. Munwar Basha** and G L Sivakumar Babu (2013). Calibration of Reliability Based Load and Resistance Factors for External Seismic Stability of Reinforced Soil Walls. **ASCE Geotechnical Special Publication, 231: 1196-1205** (In Seismic Design and Performance of Geosynthetic-Reinforced Earth Structures, Geo-Congress 2013 San Diego, California, USA, on March 3-6, 2013)
26. **B. Munwar Basha** and G L Sivakumar Babu (2013). System Reliability Based Load Resistance Factor Design (LRFD) for External Seismic Stability of Reinforced Soil Walls. **ASCE Geotechnical Special Publication, 229: 570-584**. (In Geo-Congress 2013 Foundation Engineering in the Face of Uncertainty: Honoring Fred H. Kulhawy, Edited by James L. Withiam, Kok-Kwang Phoon, and Mohamad Hussein)
27. **B. Munwar Basha** and G L Sivakumar Babu (2011). Strain Localization Effect on System Reliability Based Design of Bridge Abutments under Earthquake Loading. **ASCE Geotechnical Special Publication, 224: 744-753** (In Geo-Risk, Risk Assessment and Management in Geoengineering, June 26 - 28, Atlanta, GA).
28. **B. Munwar Basha** and G L Sivakumar Babu (2011). Influence of Strain Localization on Reliability Based Design of Bridge Abutments using Pseudo-Dynamic Method. **ASCE Geotechnical Special Publication, 211, : 3008 - 3017**, **(**In Geo-Frontiers - 2011, 13-16 March 2011, Dallas, Texas USA).
29. **B. Munwar Basha** and G L Sivakumar Babu (2010). Load Resistance Factor Design for External Seismic Stability of Reinforced Soil Walls**.** **ASCE Geotechnical Special Publication, 199: 2113-2122,** In (GeoFlorida, Advances in Analysis, Modeling & Design, February 20-24, 2010 West Palm Beach, Florida, USA).
30. **B. Munwar Basha** and G. L. Sivakumar Babu. (2009). Reliability Based Design Optimization for Internal Stability of Reinforced Soil Structures Using Pseudo-Static Method. in Contemporary Topics in In Situ Testing, Analysis, and Reliability of Foundations**,** **ASCE Geotechnical Special Publication, 186: 364-371,** Eds. Magued Iskander, Debra F. Laefer, and Mohamad H. Hussein.
31. **B. Munwar Basha** and G L Sivakumar Babu (2008). Seismic passive earth pressure coefficients by pseudo-dynamic method using composite failure mechanism. In Geosustainability and Geohazard Mitigation**,** **ASCE Geotechnical Special Publication, 178: 343 - 350.** Eds. Krishna R. Reddy, Milind V. Khire, and Akram N. Alshawabkeh.
32. **B. Munwar Basha** and G. L. Sivakumar Babu (2007). Reliability based design optimization of gravity retaining walls. In Probabilistic Applications in Geotechnical Engineering**,** **ASCE Geotechnical Special Publication, 170: 1-10,** Eds. Kok-Kwang Phoon, Gordon A. Fenton, Edward F. Glynn, C. Hsein Juang, D. V. Griffiths, Thomas F. Wolff, and Limin Zhang.

National, International Conference and Symposia Publications:

33. Shilpi Mahapatra, **B. Munwar Basha** and Bappaditya Manna. (2015). Reliability Analysis of Translational Failure of MSW Landfills under Different Leachate Buildup Conditions. Theme: Geoenvironmental Technology (Design of Landfill) in Sixth International Geotechnical Symposium on Disaster Mitigation in Special Geoenvironmental Conditions, IIT Madras, Chennai, India, January 21-23, 2015. (**Abstract Submitted**)
34. **B. Munwar Basha** and K. V. N. S. Raviteja. (2014). Reliability Based Design Optimization of Geosynthetic Anchor Trenches for Municipal Solid Waste (MSW) Landfill Slopes. Theme: Risk Analysis and Reliability, Indian Geotechnical Conference 2014, Kakinada, Dec 18 to 20, 2014 (Paper ID: T11P08, **Abstract Accepted**)
35. **B. Munwar Basha** (2014)**.** Computation of Reliability based LRF for external seismic stability of reinforced soil walls. GeoApps 2014 held on Apr 04, 2014 at JNTU Hyderabad.
36. **B. Munwar Basha**, Shilpi Mahapatra, Bappaditya Manna (2014). Municipal solid waste landfill slopes: A reliability based approach. **The 14th International Conference of the International Association for Computer Methods and Advances in Geomechanics (14IACMAG),** Kyoto, Japan, September 22-25, 2014. **(Accepted for Publication)**
37. B. Janaki Ramaiah, G. V. Ramana and **B. Munwar Basha** (2013). Preliminary geotechnical investigations of a municipal solid waste dump at Ghazipur, New Delhi, India. Fourth Young Indian Geotechnical Conference(4IYGEC-2013), 17-18 May 2013, IIT Madras.
38. B. Janaki Ramaiah, Tufel Ahmed, **B. Munwar Basha** and G. V. Ramana (2013). Shear Strength Characterization of Degraded Municipal Solid Waste. In Proc. National conference on **Geotechnical and Geoenvironmental Aspects of Wastes and Their Utilization in Infrastructure Projects (GGAWUIP-2013)**, (Eds. J.N.Jha, Harvinder Singh and K.S. Gill), Ludhiana, India, 15-16 Feb, 2013, Vol I, pp. 15-24.
39. Anmol Nagpal and **B. Munwar Basha** (2012). Reliability Analysis of Anchored Rock Slopes against Planar Failure. In **Indian Geotechnical Conference (IGC), December 13-15, 2012, New Delhi**.
40. Shankesh Sharma and **B. Munwar Basha** (2012). Load Resistance Factor Design (LRFD) Approach for Reliability Based Seismic Design of Rock Slopes against Wedge Failures. In **Indian Geotechnical Conference (IGC), December 13-15, 2012, New Delhi**.
41. **B. Munwar Basha** (2011). Strain Localization Effect on System Reliability Based Design of Bridge Abutments under Seismic Loading. In **Indian Geotechnical Conference (IGC), December 15-17, 2011, Kochi**.
42. **B. Munwar Basha** (2011). Linear and Exponential Functions to Evaluate Seismic Active Earth Pressure Considering Strain Localization Effect. **in 3rd Young Indian Geotechnical Conference, CRRI, New Delhi.**
43. B. Janaki Ramaiah, G. V. Ramana, **B. Munwar Basha**. (2010). Geotechnical Characterization of MSW and Need for Reliability Based Design of Landfills in India. **In First US-India workshop on Global Geoenvironmental Engineering Challenges (GGEC), New Delhi, India, November 7, 2010, pp: 131 – 137.**
44. **B. Munwar Basha** and G L Sivakumar Babu (2010). Optimum Design of Bridge Abutments under Seismic Conditions: A Reliability Based Approach in **Indian Geotechnical Conference (IGC), Guntur, A.P. December 16 - 19, 2009 pp: 779 - 783.**
45. **B. Munwar Basha** and G. L. Sivakumar Babu (2009). The influence of strain localization and phase on the estimation of earth pressures for high seismic loading. Paper presented in **Second Annual Student Symposium conducted by Dept of Civil Engg, IISc Bangalore.**
46. **B. Munwar Basha** and G. L. Sivakumar Babu (2008). Seismic stability analysis of reinforced soil structures using pseudo-static method. **2 nd Young Indian Geotechnical Conference, Kakinada, A.P. 14 - 15 March 2009, , pp: 107 - 110**

47. **B. Munwar Basha** and G. L. Sivakumar Babu (2008). Seismic stability analysis of mechanically stabilized earth walls using pseudo-static method. **17th international conference on soil mechanics and geotechnical engineering, ICSMGE, Bibliotheca Alexandrina, Alexandria, Egypt, 5-9 Oct 2009.**
48. **B. Munwar Basha** and G. L. Sivakumar Babu (2008). Load Resistance Factor Design (LRFD) of Cantilever Retaining Walls. **Indian Geotechnical Conference (IGC), IISc Bangalore, pp: 575 - 578.**
49. **B. Munwar Basha** and G. L. Sivakumar Babu (2008). Pseudo-Static and Pseudo-Dynamic Stability Analysis of Reinforced Earth Structures: A Comparative Study**.** Paper presented in **First Annual Student Symposium conducted by Dept of Civil Engg IISc Bangalore.**
50. **B. Munwar Basha** and G. L. Sivakumar Babu (2008). Reliability based design optimization of bridge abutments using pseudo-dynamic method. **12 th IACMAG, Goa Conference, pp: 2867-2874 (paper presented).**
51. **B. Munwar Basha** and G. L. Sivakumar Babu (2007). Target reliability based design optimization of cantilever retaining walls. **13th Asian Regional Conference on Soil Mechanics & Geotechnical Engineering, Kolkata,**
52. **B. Munwar Basha** and G. L. Sivakumar Babu (2007). Analysis of cantilever sheet pile walls using inverse reliability method. **First Indian Young Geotechnical Engineers Conference (FIYGEC), HYDERABAD.**
53. G. L. Sivakumar Babu and **B Munwar Basha** (2006). Inverse reliability based design optimization of cantilever retaining walls. **3rd International ASRANet Colloquium, Glasgow, UK. Pp 1- 10.**

Invited Lectures

1. Invited by **Prof. Arif Masud** to deliver a Presentation on **Reliability Analysis of Nanoiron Particle Transport through Porous Media** on 27th June 2014 at **Department of Civil and Environmental Engineering, University of Illinois at Urbana Champaign (UIUC), Illinois, United States.**
2. Computation of Reliability based LRF for external seismic stability of reinforced soil walls. GeoApps 2014 held on Apr 04, 2014 at JNTU Hyderabad, Andhra Pradesh, India.
3. Invited by **Prof. D. N. Singh** to participate and deliver a presentation on "**ASD to LRFD to Reliability based LRFD**" in the brain storming session on **Emerging Trends in Geotechnical Engineering** under the aegis of Science and Engineering Research Board (SERB) of **Department of Science and Technology (DST)**, India on Mar 26 2014, at VMCC building, IIT Bombay.
4. Invited by **Prof. Krishna R Reddy** to deliver a Presentation on **"Load Resistance Factor Design of Mechanically Stabilized Earth Walls"** on Feb 28, 2014 at Department of Civil and Materials Engineering, University of Illinois at Chicago UIC), Chicago, Illinois 60607, USA.

Keynote Lectures

1. Krishna R Reddy and **B. Munwar Basha** (2014)**.** Slope Stability of Landfills: State-of-the-Art and Future Challenges. Indian Geotechnical Conference 2014, Kakinada, Andhra Pradesh, India on Dec 18 to 20, 2014.

Theses

- **B. Munwar Basha (2009).** Optimum design of retaining structures under static and seismic loading: A reliability based approach. Ph.D Thesis, Indian Institute of Science Bangalore, Bengaluru, Karnataka, India (under the supervision of Prof. G L Sivakumar Babu)
- **B. Munwar Basha (2004).** Seismic stability analysis of geosynthetic reinforced soil (GRS) retaining walls. Indian Institute of Technology Kanpur (IIT Kanpur), Uttar Pradesh, India (under the supervision of Prof. P. K. Basudhar)

Teaching Activities

Courses taught and being taught at IIT Hyderabad

UG

1. CE 2020 – Construction Materials Lab (Co teaching) [Aug – Dec 2013]
2. CE 3301 - Geotechnical Engineering Lab (Co teaching) [Jan – May 2014]

PG

1. CE 6330 – Soil Dynamics [Jan – May 2014]
2. CE 6352 – Design of Earth Structures [Aug – Dec 2013]
3. CE 6002 – Design Studio (Co teaching) [Aug – Dec 2013]

Courses taught at IITD

UG

1. CEL321 – Geotechnical Engineering
2. CEN110 – Introduction to Civil Engineering
3. CEL423 – Designs of Foundation Earth & Earth Retaining Structures
4. CEL222 – Engineering Geology and Soil Mechanics
5. CEL421 - Ground Improvement
6. CEP200 – Design Concepts in Civil Engineering

PG students

1. CEL715 – Soil Structure Interaction Analysis
2. CEL752 – Slopes and Foundations in Soil and Rock Mechanics
3. CEP701 – Soil Engineering Laboratory

Teaching in specialized training programs for professionals

1. Delivered a lecture on "*Rock Slope Stability Analysis*" in the Training Course on "Rock Engineering and its Practice" held at Department of Civil Engineering, IIT Delhi from 27th May to 1st June 2013 for Konkan Railway Corporation Ltd. (KRCL) Organized by Prof. K. S. Rao and Dr. R. Ayothiraman
2. Delivered a lecture on "S*oil Structure Interaction*" in the short Course on **Soil Mechanics and Foundation Engineering: Principles and Practices**, Organized by Dr. Bappaditya Manna Tanusree Chakraborty, May 17, 2012, Department of Civil Engineering, Indian Institute of Technology Delhi, Hauz Khas, New Delhi-110016, India.

Research Guidance

Ph.D

1. K. V. N. S. Raviteja. Reliability Analysis of Municipal Solid Waste Landfills (ongoing)
2. Shilpi Mahapatra. Vertical expansion of Municipal Solid Waste Landfills (MSW) using Retaining walls. Department of Civil Engineering, IIT Delhi (in progress under joint supervision with Dr. Bappaditya Manna, Department of Civil Engineering, IIT Delhi). (ongoing)

M.Tech

Sahithi Arukonda (2013 - 2015). Reliability Based Design of Soil Slopes: Numerical and Analytical Approach (ongoing)

Sagir Hussain Peada (2013 - 2015). Geotechnical Properties of Hyderabad Municipal Solid Waste Landfills (ongoing)

M.Tech (guided at IIT Delhi)

1. K Chandrakant (2011-2013). Reliability analysis of bearing capacity of foundations on joined rock masses. Rock Engineering and Underground Structures, Department of Civil Engineering, IIT Delhi.
2. Niteesh Kumar (2011-2013). Vertical expansion of Municipal Solid Waste (MSW) open dump landfills. Geotechnical and Geoenvironmental Engineering, Department of Civil Engineering, IIT Delhi.
3. Anmol Nagpal (2010-2012). Reliability assessment of anchored rock slopes against plane failure. Rock Engineering and Underground Structures, Department of Civil Engineering, IIT Delhi.
4. Shankesh Sharma (2010-2012). Load Resistance Factor Design (LRFD) approach for the reliability based design of rock slopes against wedge failure. Rock Engineering and Underground Structures, Department of Civil Engineering, IIT Delhi.
5. Ashwini Kumar Verma (2010-2012). Effect of composition on Mechanical Properties of Municipal Solid Waste. Geotechnical and Geoenvironmental Engineering, Department of Civil Engineering, IIT Delhi (Co-supervisor: Prof. G. V. Ramana)

B.Tech

1. Ashbir Singh Bhatia (2012). Optimum design of municipal solid waste landfill slopes using retaining walls. Department of Civil Engineering, IIT Delhi.
2. Maneesha Arya (2012). Analysis and design of veneer cover soils for landfill slopes, Department of Civil Engineering, IIT Delhi.
3. Akanksha Gupta (2012). Seismic analysis of municipal solid waste landfill for optimum design of retaining structures, Department of Civil Engineering, IIT Delhi.
4. Ankit Gupta (2011). Effect of arching on active earth pressures., Department of Civil Engineering, IIT Delhi.

Grants Received

Sponsored Research Projects

1. **B. Munwar Basha (2012).** "Vertical Expansion of Existing Municipal Solid Waste (MSW) Landfills using Retention Systems" **DST Fast-Track Scheme for Young Scientist award**, Science and Engineering Research Council (SERC), Department of Science & Technology (DST), Ministry of Science & Technology, Government of India (Rs. 13.36 lakhs).

2. **B. Munwar Basha (2011).** Reliability Based Slope Stability Assessment of Waste Containment Systems." New Research Faculty Grant, funded by Industrial Research and Development (IRD), IIT Delhi (Rs. 9 lakhs)
3. **B. Munwar Basha (2011).** Calibration of LRFD for reliability based designs in geotechnical engineering." Infrastructure facility under the research grant for new faculty (RGNF) scheme, funded by Industrial Research and Development (IRD), IIT Delhi (Rs. 1.0 lakh)

Consultancy Projects

1. **B. Munwar Basha** and G. V. Ramana (2013). Reinforced Earth Wall Construction at Sevalia, Godra, Gujarat . Funded by Reinforced Earth India (REIPL) Pvt. Ltd., New Delhi. (Rs. 1.0 lakhs)
2. **B. Munwar Basha** (2013). Reinforced Earth Wall Construction at Arts College Alwar, Rajasthan. Funded by Balabharti Infrastructure Pvt. Ltd., Jaipur. (Rs. 1.0 lakh)
3. **B. Munwar Basha** and G. V. Ramana (2012). Proof Checking of RE Wall Design and Drawings for M/s. GVK on SH-08 in the State of Gujarat Bagodara-Vasad Section. Funded by Earthcon Systems (India) Pvt. Ltd., New Delhi. (Rs. 1.5 lakhs)
4. **B. Munwar Basha** and G. V. Ramana (2012). Proof Checking of Reinforced Earth Walls for Hosur-Krishnagiri Road and Krishnagiri-Walajhpet Road. Funded by Reinforced Earth India Pvt. Ltd., New Delhi. (Rs. 1.5 lakhs)
5. **B. Munwar Basha** and G. V. Ramana (2012). Proof Checking of R.E.Wall for Construction of 2 Lane ROB Badkal Chowk, Faridabad. Funded by MBL-ATLAS Construction J.V., Faridabad, Haryana. (Rs. 1.0 lakh)
6. **B. Munwar Basha** and G. V. Ramana (2012). Four Laning of Reengus-Sikar, NH-11 Section. Funded by Balabharti Infrastructure Pvt. Ltd., Jaipur. (Rs. 1.0 lakh)
7. **B. Munwar Basha** and G. V. Ramana (2012). Proof Checking of RE Design and Drawings of NH-30, Patna-Bakhtiyarpur, Bihar Project. Funded by BSC-C&C JV, Gurgaon. (Rs. 3.0 lakhs)
8. G. V. Ramana and **B. Munwar Basha** (2012). Proof Checking of RE Wall Design for Kishangarh-Ajmer-Beawar Section of NH-8. Funded by Earthcon Systems (India) Pvt. Ltd., New Delhi. (Rs. 1.5 lakhs)
9. G. V. Ramana and **B. Munwar Basha** (2012). Proof Check of RSRW Design / Drawing for Ranchi-Patratu Dam, Ramgarh Road (Package RPR II). Funded by Sachi Geosynthetics Pvt. Ltd., Faridabad. (Rs. 1.0 lakh)
10. G. V. Ramana and **B. Munwar Basha** (2012). Construction of Approaches to ROB near Chaipal. Funded by RKD Construction Pvt. Ltd. (Rs. 3.0 lakhs)

Professional Activities

Examination of M.Tech/Ph.D Thesis

1. M.Tech Thesis submitted by B. Bhadak of Department of Materials Science and Metallurgical Engineering, IIT Hyderabad.
2. M.Tech Thesis submitted by Nida Khan of Department of Materials Science and Metallurgical Engineering, IIT Hyderabad.
3. M.Tech dissertation submitted by Basavraj Hotti (Roll No: 2BA11CGT02) of Department of Civil Engineering, Basaveshwar Engineering College, Bagalkot, Karnataka on 09/11/2013.
4. M.Tech dissertation submitted by Harish M Kadam (Roll No: 2BA11CGT04) of Department of Civil Engineering, Basaveshwar Engineering College, Bagalkot, Karnataka on 09/11/2013.

5. M.Tech dissertation submitted by Hemant Kumar Ronad (Roll No: 2BA11CGT05) of Department of Civil Engineering, Basaveshwar Engineering College, Bagalkot, Karnataka on 09/11/2013.
6. Ph.D thesis of K V Surya Narayana (2010). "Geo-Hydrological investigations and impact of rain water harvesting structures on ground water potential in Anantapur District" Jawaharlal Nehru Technological University (JNTU), Anantapur, A.P. (24/12/2010)

Reviewer for the following journals

1. Acta Geotechnica published by Springer, Germany
2. ASCE conferences (GeoCongress, GeoFrontiers and IFCEE)
3. Cogent Engineering, Taylor and Francis Journal
4. Earthquake Engineering and Engineering Vibration
5. Engineering Geology, published by Elsevier
6. Geomechanics and Geoengineering: An International Journal
7. Georisk: Assessment and Management of Risk for Engineered Systems and Geohazards.
8. Geotechnical and Geological Engineering
9. Geotechnique Letters
10. Ground Improvement
11. Indian Geotechnical Journal, published by Indian Geotechnical society.
12. International Journal of Geotechnical Earthquake Engineering (IJGEE) published by IGI Global.
13. International Journal of Geotechnical Engineering published by J Ross.
14. International Journal of Physical Sciences
15. International Journal of Reliability and Safety, published by Inderscience.
16. Journal of earth system science, published by Indian Academy of sciences Bangalore.
17. Journal of Hazardous, Toxic, and Radioactive Waste published by ASCE
18. SADHANA - Academy Proceedings in Engineering Sciences - published by the Indian Academy of Sciences Bangalore.
19. Soils and Foundations, Japanese Geotechnical Society

Organization of Conferences and Workshops

1. **Organizing Secretary** for International Conference on Sustainable Civil Infrastructure, **ICSCI 2014** will be held on Oct 16 - 18, 2014 in Hyderabad. The conference is organized by the American Society of Civil Engineers - India Section in association with Department of Civil Engineering, Indian Institute of Technology Hyderabad.
2. **Organizing Committee Member –** A Symposium on **Landfill Engineering: Perspectives and Practices**, held at Indian Institute of Technology Hyderabad, Ordnance Factory Campus, Yeddumailaram 502205, India on August 06, 2013 from 2 to 5.30 pm which was organized by ASCE India Section, Southern Region in association with IGS Hyderabad Chapter and IIT Hyderabad.
3. Organizing committee member and Website Coordinator for **4th International Seminar on Forensic Geotechnical Engineering**, January 10-12, 2013, Bengaluru, India (Job involves designing the webpage of 4ISFGE and keep updating periodically the contents of webpage, as and when is required).
4. Organizing committee member and Website Coordinator for **Indian Geotechnical Conference, IGC-2012**, Advances in Geotechnical Engineering, December 13-15, 2012,

New Delhi, India (Job involves designing the webpage of IGC 2012 and keep updating periodically the contents of webpage, as and when is required).

5. Organizing committee member of Third Young Geotechnical Engineers Conference (3IYGEC), March 25 - 26, Central Road Research Institute, New Delhi, India
6. Organizing secretary, First US-India Workshop on **"Global Geoenvironmental Engineering Challenges"**, November 7, New Delhi, India. (Organized by Prof. Krishna Reddy, Prof. Manoj Datta, Dr. G V Ramana, and Prof. G L Sivakumar Babu)
7. Organizing committee member in "**6th International Congress on Environmental Geotechnics (6ICEG)**", November 8 - 12, 2010, New Delhi, India and Coordinated a panel discussion on "Opportunities for Research Partnerships in Environmental Geotechnics – A.
8. Organizing committee Member in "**International Conference on Forensic Geotechnical Engineering**", December 14-15, 2010, IIT Bombay.

Membership of Professional bodies

1. Member of International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE)
2. Life Member of Indian Geotechnical Society (IGS), LM 3173
3. Member of ASCE (ID No: 469215) India section, awarded by the ASCE board of direction

Conferences attended and presentations delivered

1. Reliability analysis of Nanoiron Particle Transport through porous media. Presentation delivered on 27th June 2014 at **Department of Civil and Environmental Engineering, University of Illinois at Urbana Champaign (UIUC)**, Illinois, United States.
2. **The 18th Great Lakes Geotechnical and Geoenvironmental Conference** (GLGGC) & The 2014 Chicago Geotechnical Lecture Series on Geotechnical Earthquake Engineering, held on May 2, 2014 at University of Illinois at Chicago (UIC), Organized by: Geo-Institute Chapter of the ASCE Illinois Section.
3. Strain Localization Effect on System Reliability Based Design of Bridge Abutments under Seismic Loading, **Indian Geotechnical Conference (IGC), December 15-17, 2011, Kochi, Kerala, India**.
4. *Linear and Quadratic Functions to Evaluate Seismic Active Earth Pressure Considering Strain Localization Effect,* **3rd Young Geotechnical Engineers Conference (3IYGEC)**, March 25 - 26, 2011, Central Road Research Institute (CRRI), New Delhi, India
5. First US-India Workshop on **"Global Geoenvironmental Engineering Challenges"**, November 7, New Delhi, India
6. 6th International Congress on Environmental Geotechnics **(6ICEG)** 2010, November 8 - 12, 2010, New Delhi, India
7. Presentation on "Reliability based design optimization of bridge abutments using pseudo-dynamic method" in **12th IACMAG** conference, Goa, Oct (1 – 6).
8. Target reliability based design optimization of cantilever retaining walls in **13th ARC**, Kolkata.
9. The influence of strain localization and phase on the estimation of earth pressures for high seismic loading, **Second Annual Student Symposium, 2009** conducted by Dept of Civil Engg, IISc Bangalore.
10. Pseudo-Static and Pseudo-Dynamic Stability Analysis of Reinforced Earth Structures: A Comparative Study, **First Annual Student Symposium, 2008** conducted by Dept of Civil Engg. IISc Bangalore.

11. National conference on Case studies in Geotechnical Engineering, **(GEOPRACTICE 2005)**, IISc Bangalore.
12. International Workshop on Risk assessment in Site Characterization and Geotechnical Design, **(GEORISK 2004),** IISc Bangalore.

Administration at IIT Hyderabad

1. Member of the committee nominated by the Director, for formation of institute wise norms/rules, when a student needs a temporary leave (for 1 and 2 semesters) from his/her Masters/ Ph.D program either due to medical or job reasons
2. Institute Representative (IR) for GATE online exam conducted on Feb 15 and 16, 2014
3. M.Tech program Advisor for 2013 entry students [Batch 2013 – 2015] in the Department of Civil Engineering

Administration at IIT Delhi

1. Departmental representative for OPEN HOUSE 2013 at IIT Delhi
2. Program Coordinator for the M.Tech programme in **Rock Engineering and Underground Structures** in Geotechnical Engineering Section of Department of Civil Engineering, IIT Delhi (2011 to 2013).
3. Member of Departmental Research Committee (DRC), Department of Civil Engineering, IIT Delhi (2011 to 2013).
4. Institute Representative (IR) for IIT-JEE conducted in 2011, 2012 and 2013.
5. Institute Representative (IR) for GATE exams conducted in 2011, 2012 and 2013.
6. Course Advisor to 16 B.Tech students of 2010 entry in the Department of Civil Engineering.
7. Member of the Proctorial Team for the first year B.Tech students of 2010 entry (Sivalik Hostel, IIT Delhi).
8. Member of the Proctorial Team for the first year B.Tech students of 2011 entry (Vindhyachal Hostel, IIT Delhi).
9. Member of the Proctorial Team for the first year B.Tech students of 2012 entry (Nilgiri Hostel, IIT Delhi).

Citation Overview

Citation Index, h = 4.0 (excluding self-citations). Follow the below Scopus link to get more information on citations.

http://www.scopus.com/results/savedList.url?cc=10&sort=cp-f&listId=3540392&src=s&nlo=&nlr=&nls=&imp=t&sid=407204B3A65FF4FA38B98847A1FE84A7.Vdktg6RVtMfaQJ4pNTCQ%3a40&sot=sl&sdt=sl&sl=0&ss=cp-f&ws=r-f&ps=r-f&cs=r-f&origin=resultslist&zone=resultslist

- **B. Munwar Basha** and G L Sivakumar Babu (2010). Reliability Assessment of Internal Stability of Reinforced Soil Structures: A Pseudo-Dynamic Approach. **Soil Dynamics and Earthquake Engineering, 30(5): 336 - 353.** Cited by
  1. Yang, H.-Q., Yang, X.-M., Zhou, X.-P. (2012). Analysis of active earth pressure and rotational displacement at retaining wall under seismic loads. **Yantu Lixue/Rock and Soil Mechanics, 33 (SUPPL. 2): 139-144.**
  2. Zhou, X., Ji, X., Qian, Q. (2012). Stability analysis of water front retaining wall subjected to seismic loads using pseudo-dynamic method. **Yanshilixue Yu Gongcheng Xuebao/Chinese Journal of Rock Mechanics and Engineering, 31 (10): pp. 2071-2081.**
  3. Kim, D., and Salgado, R. (2012). Load and Resistance Factors for External Stability Checks of Mechanically Stabilized Earth Walls. **Journal of Geotechnical and Geoenvironmental Engg., ASCE, 138(3): 241-251**.

4. Kim, D., and Salgado, R. (2012). Load and Resistance Factors for Internal Stability Checks of Mechanically Stabilized Earth Walls. **Journal of Geotechnical and Geoenvironmental Engg., ASCE**, (posted ahead of print) In Press.

- **B. Munwar Basha** and G L Sivakumar Babu (2010). Optimum Design for External Seismic Stability of Geosynthetic Reinforced Soil Walls: A Reliability Based Approach. **Journal of Geotechnical and Geoenvironmental Engineering ASCE, 136(6): 797-812.** Cited by

5. Liu, Z., Yang, G. Shen, C., & Xu, J. (2012). Structural system reliability analyse of reinforced earth retaining wall. **Zhongnan Daxue Xuebao (Ziran Kexue Ban)/Journal of Central South University (Science and Technology), 43(3), 1160-1165.**

- **B. Munwar Basha** and G L Sivakumar Babu (2010). Seismic Rotational Displacements of Gravity Walls by Pseudo-Dynamic Method with Curved Rupture Surface. **International Journal of Geomechanics ASCE 10(3): 93 – 105.** Cited by
  6. Zhou, X., Ji, X., Qian, Q. (2012). Stability analysis of water front retaining wall subjected to seismic loads using pseudo-dynamic method. **Yanshilixue Yu Gongcheng Xuebao/Chinese Journal of Rock Mechanics and Engineering, 31 (10): pp. 2071-2081.**
  7. Sima Ghosh and Richi Prasad Sharma (2012). Seismic Active Earth Pressure on the Back of Battered Retaining Wall Supporting Inclined Backfill. **International Journal of Geomechanics, 12(1): 54-63.**
  8. Ahmed, A., Ugai, K. and Yang, Q. Q. (2012). Assessment of 3D Slope Stability Analysis Methods Based on 3D Simplified Janbu and Hovland Methods. **International Journal of Geomechanics. 12(2): 81-89.**
- **B. Munwar Basha** and P. K. Basudhar (2010). Pseudo Static Seismic Stability Analysis of Reinforced Soil Structures. **Geotechnical and Geological Engineering, 28(6): 745-762.** Cited by
  9. Vieira C S,, Lopes M L, Caldeira L M. (2011). Earth pressure coefficients for design of geosynthetic reinforced soil structures, **Geotextiles and Geomembranes, 29: 491-501.**
  10. Marcato, G., Mantovani, M., Pasuto, A., Zabuski, Z. and Borgatti. L. (2012). Monitoring, numerical modelling and hazard mitigation of the Moscardo landslide (Eastern Italian Alps), **Engineering Geology, 128: 95–107.**
- **B. Munwar Basha** and G L Sivakumar Babu (2009). Computation of sliding displacements of bridge abutments by pseudo-dynamic method. **Soil Dynamics and Earthquake Engineering, 29(1): 103 - 120.** Cited by
  11. Choudhury, D. (2010). Integrity of Sub-Structural Systems during Earthquake: Indian and International Perspectives. **Tech Science Press SL, 3(2): 155-170.**
  12. Psarropoulosa P N, Tsompanakis Y and Papazafeiropoulos G. (2010) Effects of soil non-linearity on the seismic response of restrained retaining walls. **Structure and Infrastructure Engineering, 1-12.**
  13. Yan W, Li Y, Chen Y. (2011). Seismic testing of long-span concrete filled steel tubular arch bridge. **Key Engineering Materials, 456:89-102.**
  14. Ghosh, P, Kolathayar, S. (2011). Seismic Passive Earth Pressure Behind Non Vertical Wall with Composite Failure Mechanism: Pseudo-Dynamic Approach. **Geotechnical and Geological Engineering, 1-11.**
  15. Zhou, X., Ji, X., Qian, Q. (2012). Stability analysis of water front retaining wall subjected to seismic loads using pseudo-dynamic method. **Yanshilixue Yu Gongcheng Xuebao/Chinese Journal of Rock Mechanics and Engineering, 31 (10): 2071-2081.**
- B. Munwar Basha and G L Sivakumar Babu (2008). Target reliability based design optimization of anchored cantilever sheet pile walls. **Canadian Geotechnical Journal, 45 (3): 535-548.** Cited by
  16. Zhang, J, Zhang, L. M., and Tang, Wilson H. (2011). Reliability-Based Optimization of Geotechnical Systems. **Journal of Geotechnical and Geoenvironmental Engineering, 137(12): 1211-1221.**
  17. Ioannis E. Zevgolisa & Philippe L. Bourdeaub (2010). System reliability analysis of the external stability of reinforced soil structures. **Georisk: Assessment and Management of Risk for Engineered Systems and Geohazards**, 4(3): 148-156. (Special Issue: Risk Assessment In Geotechnical And Geoenvironmental Practice)
- G L Sivakumar Babu and **B. Munwar Basha** (2008). Optimum design of cantilever sheet pile walls in sandy soils using inverse reliability approach. **Computers and Geotechnics. 35(2): 134-143.** Cited by
  18. Mehrab, J., Iman, M., and Ajami, A. (2011). Comparison between 2d and 3d behavior of sheet piles by finite element method. **Kuwait Journal of Science and Engineering, 38(2 B), 1-16.**

19. Zhang, J, Zhang, L. M., and Tang, Wilson H. (2011). Reliability-Based Optimization of Geotechnical Systems. **Journal of Geotechnical and Geoenvironmental Engineering, 137(12): 1211-1221.**
20. Goh, A T C, Phoon K K, Kulhawy (2009). Reliability Analysis of Partial Safety Factor Design Method for Cantilever Retaining Walls in Granular Soils. **J Geotechnical and Geoenvironmental Engg., 135(5): 616-622.**
21. Sawwaf M. El. (2009). Experimental and Numerical Study of Strip Footing Supported on Stabilized Sand Slope. **Geotechnical and Geological Engineering.**
22. Deb K, Dhar A. (2011). Optimum design of stone column-improved soft soil using multi-objective optimization technique, **Computers and Geotechnics, 38: 50–57.**
23. Sahin A. (2011). Mathematical models and solution algorithms for computational design of RC piles under structural effects. **Applied Mathematical Modelling, 35: 3611–3638.**
24. Manojit Chakraborty, A. Murali Krishna and Arunasis Chakraborty. (2011). Reliability based performance evaluation of earth retaining structures. **GeoRisk 2011: Geotechnical Risk Assessment and Management, ASCE, GSP, 224: 762-769.**

- G L Sivakumar Babu and **B. Munwar Basha** (2008). Optimum design of cantilever retaining walls using target reliability approach. **International Journal of Geomechanics, ASCE, 8(4): 240-252.** Cited by

25. Camp, C.V., Akin, A. (2012). Design of retaining walls using big bang-big crunch optimization. **Journal of Structural Engineering (United States), 138 (3): 438-448.**
26. Kaveh, A., Behnam, A.F. (2013). Charged System Search Algorithm for the Optimum Cost Design of Reinforced Concrete Cantilever Retaining Walls. **Arabian Journal for Science and Engineering, 38 (3): 563-570.**
27. Jayasree, P. K., Rajagopal, K. and Gnanendran, C. T. (2012). Influence of Sidewall Friction on the Results of Small-Scale Laboratory Model Tests: Numerical Assessment. **International Journal of Geomechanics ASCE, 12(2): 119-126.**
28. Yepes, V., Gonzalez-Vidosa, F., Alcala, J. and Villalba, P. (2012). CO2-Optimization Design of Reinforced Concrete Retaining Walls Based on a VNS-Threshold Acceptance Strategy. **Journal of Computing in Civil Engineering ASCE, 26(3): 378-386.**
29. Peia Y, Xia Y. (2012). Design of Reinforced Cantilever Retaining Walls using Heuristic Optimization Algorithms, **Procedia Earth and Planetary Science, 5: 32 – 36, Elsevier publisher** (2012 International Conference on Structural Computation and Geotechnical Mechanics).
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32. Mohammad Khajehzadeh and Mahdiyeh Eslami. (2012). Gravitational search algorithm for optimization of retaining structures. **Indian Journal of Science and Technology. 5(1): 1821-1827.**
33. Kaveh A, Abadi A S M (2011). Harmony search based algorithms for the optimum cost design of reinforced concrete cantilever retaining walls, **International Journal of Civil Engineering, 9(1): 1-8.**
34. Sujith, M. S., Dewas Menon, and Dodagoudar, G. R. (2011). Reliability analysis and design of cantilever RC retaining walls against sliding failure. **International Journal of Geotechnical Engineering**, J. Ross Publishing, Inc. **5(2): 131-141.**
35. Ghazavi, M. and Bonab S. B. (2011). Optimization of Reinforced Concrete Retaining Walls Using Ant Colony Method. ISGSR 2011 Vogt, Schuppener, Straub & Bräu (eds) - Bundesanstalt für Wasserbau **297 - 305.** (ISBN 978-3-939230-01-4).
36. Vishal Poddar and Pratap Kumar Bebarta (2011). *Analysis of Foundations and Retaining Walls on Industrial Waste*. B.Tech Project Report, Department of Civil Engineering, National Institute of Technology Rourkela.
37. Khajehzadeh M., Taha M. R., El-Shafie A., and Eslami M. (2010). Economic Design of Retaining Wall Using Particle Swarm Optimization with Passive Congregation. Australian **Journal of Basic and Applied Sciences, 4(11): 5500-5507**. (ISSN 1991-8178).
38. Ghazavi, M. and Bonab S. B. (2011). Learning from Ant Society in Optimizing Concrete Retaining Walls. **Journal of Technology & Education, 5(3): 205-212.**

- **B. Munwar Basha** and P.K. Basudhar (2005). Pseudo-Static seismic stability analysis of geosynthetic-reinforced soil retaining walls. **Indian Geotechnical Journal. 35(3): 323 - 348.** Cited by

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54. **B. Munwar Basha** and G L Sivakumar Babu (2009). Seismic reliability assessment of external stability of reinforced soil walls using pseudo-dynamic method. **Geosynthetics International. 16 (3): 197 - 215.** Cited by

    40. Bhattacharjee, A., Krishna, A.M. (2012). Development of numerical model of wrap-faced walls subjected to seismic excitation. **Geosynthetics International**, **19 (5): 354-369.**
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    42. Zevgolis, I.E., Bourdeau, P.L. (2010). System reliability analysis of the external stability of reinforced soil structures. **Georisk**, **4 (3): 148-156.**