K. RAJAGOPAL, Ph.D.

Professor
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PAY BAND

HAG with basic of Rs. 79,000/- from July 2013

EDUCATION

Ph.D. in Engineering Mechanics, University of Florida, Gainesville, USA 1985
M. Tech. in Ocean Engineering, Indian Institute of Technology Madras 1981
B. Tech. in Civil Engineering, Jawaharlal Nehru Technological University 1979

PROFESSIONAL EXPERIENCE

Department of Civil Engineering IIT Madras	Head of the Department Feb 2008 – Jan 2011 Professor from September 2000 Associate Professor May 1995– September 2000 Assistant Professor July 1993 - May 1995
Civil Engineering Department (Military Engineering Research Group) Royal Military College of Canada, Kingston, Canada	Research Associate Sept 1986-June 1993
Civil Engineering Department Carleton University, Ottawa, Canada	Post-doctoral Fellow August 1985-Aug. 1986
Tecton Engineering Corporation Boca Raton, Florida, USA	Trainee Engineer Summer 1984

GUEST Editorship of Journals

- Guest Editor for the Special upcoming Issue of Geotextiles and Geomembranes on the topic of *Soft Ground Improvement with Geosynthetics* along with Prof. Dennes Bergado of AIT, Bangkok
- Guest Editor for the Special upcoming issue of Indian Geotechnical Journal on the topic of *Transportation Geotechnique* along with Dr. Sireesh Saride of IIT Hyderabad and Dr. Rajah Gnanendran, UNSW, Australia

EDITORIAL BOARD MEMBERSHIPS

- Geotextiles and Geomembranes, Elsevier Publishers, Amsterdam, The Netherlands
- International Journal of Geosynthetics and Ground Engineering, Springer Publishers.
- Indian Geotechnical Journal, Springer Publishers.
- Indian Journal of Geosynthetics and Ground Improvement, IGS-India Chapter, New Delhi, India.

PROFESSIONAL ACTIVITIES

- Chairman of Asian Activity Committee, International Geosynthetics Society (from January 2016)
- Corresponding Member, H-4 Committee "Embankments, Ground Improvement & Drainage", Indian Roads Congress, New Delhi
- Council Member, International Geosynthetics Society, USA, 2010-2018.
- Executive Board Member, Indian Chapter of International Geosynthetics Society, New Delhi.
- President, Indian Chapter of International Geosynthetics Society, New Delhi (2010-12).
- Executive Committee member of Indian Geotechnical Society during 2005-09.
- Member of the Board of Academic Studies of JNTU Hyderabad and Gayathri Vidya Parishad, Visakhapatnam.
- Member of Program Management Board on Coastal Erosion control of NIOT, Chennai
- Member of Technical Evaluation Committee, NIOT, Chennai

Exchange Visits to other Universities

- Karlsruhe University, Germany during December 2003 – worked on numerical modeling of soils subjected to cyclic loading
- RWTH, Aachen, Germany during May 2014 – worked on reinforced soil structures
- University of New South Wales, Canberra, Australia, July – December 2004 – worked on numerical simulation of large-scale geotechnical constructions and sidewall friction effects of laboratory model tests
- Visited National University of Civil Engineering, Hanoi and Faculty of Civil Engineering, Saigon during December 2014 to give lectures on geosynthetics

LABORATORY DEVELOPMENT

Extensively developed the geosynthetics engineering laboratory at IIT Madras with several facilities that are unique to India. Some of these include large-scale pullout apparatus for testing the connection strength and geosynthetic pullout strength, tensile strength apparatus with wide varieties of grips, in-plane permeability of geotextiles, accelerated creep-testing of geosynthetics, hydraulic grips for gripping wide width geosynthetic samples, etc.

COURSES TAUGHT at IIT Madras

Undergraduate: Geotechnical Engineering, Foundation Engineering, Principles of Reinforced Soil Structures, Soils Laboratory
Postgraduate: Geosynthetics and Reinforced Soil Structures, FEM & Constitutive Modelling in Geomechanics, Finite Element Analysis, Advanced Soil Mechanics, Applied Soil Mechanics, Structural Design of Foundations, Computer Methods in Geotechnical Engineering.
NPTEL Video course: Geosynthetics and Reinforced Soil Structures (January 2013)
This course will be offered on-line through the NPTEL web site during July–October 2015.

Memberships/Fellowships

• Fellow of Indian Geotechnical Society, New Delhi (elected in 2008)
• Member of International Geosynthetics Society since 1988
• Life Member, of Indian Society for Technical Education

• Life Member, Indian Society for Rock Mechanics and Tunneling Technology
• Registered Professional Engineer in the province of Ontario (1989-1993)

RESEARCH GUIDANCE

Ph.D. Students under guidance currently

Sl. No.	Name of Student	Area of Research Work	Date of Joining
1	D.S. Murthy	Plugging Behaviour of Offshore piles	July 2010 with Prof. RG Robinson
2	G. Sridhar	Vacuum consolidation of soils	July 2010 with Prof. RG Robinson
3	Sunil Ranjan Mohapatra	Geosynthetic Encased Stone Columns	January 2012
4	Suresh Kumar Gupta	Behaviour of Piles under cyclic vertical and lateral loads	January 2012
5	S. Nithin	Influence of natural geosynthetics on Reflection Cracking in Flexible Pavements	January 2013 with Prof A. Veeraragavan
6	B. Reshma	Reinforced Piled Embankments	July 2013 with Prof. BVS Viswanadham, IIT Bombay
7	Muneeb Ul Huq	Geosynthetic Reinforced Flexible Pavements	July 2014
8	Shiyamalaa, S.	Numerical modeling of reflection cracks	January 2015
9	Dinesh, N.	Modelling of liquefaction of soils	January 2015 with Dr. S. Banerjee
10	Jayapal, J.	Constructions in soft clay soils	January 2015
11	Krishna Chaitanya	Geosynthetic Reinforced Soil Retaining Walls subjected to Lateral Loading	Joined for MS in January 2013 (converted to Ph.D. program)

Ph. D. Theses Guided

Name of the scholar	Title of Thesis	Year of award	Co-guide
S. Ganesh Kumar	Treatment of Soft Clay Deposits by Combined Encased Stone Column and Vacuum Consolidation	2014	Dr. R.G. Robinson
Anjana Bhasi	Performance Evaluation of Geosynthetic Reinforced Embankments Supported on Piles	2013	Nil
K . Purnanandam	Studies on Controlled Yielding Technique to Reduce Lateral Earth Pressure on Rigid Retaining Structures	2009	Nil
Sajna Sayed	Reliability Analysis of Reinforced Soil Retaining Walls using Conventional and Stochastic Finite Element Methods	2009	Dr. Doda Goudar
K. Ranga Swamy	Undrained Response and Liquefaction Behaviour of Sand-Silt Mixtures Under Triaxial Loading	2009	Prof. A.Boominathan
S.Murugesan	Geosynthetic Encased Stone Columns as Ground Reinforcement of Soft Soils	2008	Nil
S.Karthigeyan	Behaviour of Piles Under Combined Axial and Lateral Loading	2006	Prof. S.R.Gandhi
S.Jayalekshmi	Studies on Geosynthetic Reinforced Retaining Walls	2004	Nil
S.K.Dash	Behaviour of Strip Footing Supported on Geocell Reinforced Sand Beds	2002	Prof. N.R.Krishnaswamy
G. Madhavi Latha	Investigations on the Behaviour of Geocell Supported Embankments	2000	Prof. N.R.Krishnaswamy
N.Unnikrishnan	Investigations on Reinforced Soil Embankments Subjected to Monotonic and Cyclic Loading	1998	Prof. N.R.Krishnaswamy

Master of Science (by research) Theses Guided

Name of the scholar	Title of Thesis	Year of award	Co-guide
K.V.Sridhanya	Investigations on the Cyclic Behaviour of Soft Clays	2008	C. Lakshmana Rao Applied Mechanics
K. Srihari	Finite Element Analysis of Reinforced Soil Walls Subjected to Seismic Excitation	2007	Nil
Anjana Bhasi	Influence of Pile Jetting on Adjacent Piles	2006	Nil
G.V.Ramesh	Studies on the Behaviour of Soil Nailed Retaining Walls	2001	Nil
P.L.S.Ramakanth	Finite Element Analysis of Subsidence in Longwall Coal Mines	2000	Dr. R.Sethuraman Mechanical Engg.
C.Subramanyam Reddy	Investigation of the Behaviour of Helical Anchors Under Horizontal Loads	2000	Nil
G.Sireesha	Finite Element Analysis of Bearing Capacity Problems	1999	Nil
S. Ramakrishna	Investigation on Application of Coir Reinforcement in Geotechnical Engineering	1997	Nil
V. Sri Hari	Investigation of the Behaviour of Retaining Walls Suppored by Vertical Plate Anchors	1997	Nil

SPONSORED RESEARCH PROJECTS

Title of the Project	Duration	Sponsoring Agency	Value of the Project (Rs.)	Coordinators
Dam Repair and Improvement Project (Laboratory development grant)	*three years from date of release of money (will be released shortly)	Central Water Commission, New Delhi	4.50 crores	20 faculty members from Civil and Ocean Engineering
Studies on Geosynthetic Based Erosion Control Measures Along East Coast of India between Chennai and Sriharikota	April 2010 to December 2013	National Institute of Ocean Technology, Chennai	48,98,000	K. Rajagopal, T. Thyagaraj V.B. Maji
Investigations on Vacuum Consolidation of Soft Clay Deposits	April 2009 to March 2012	DST, New Delhi	24,49,700	K. Rajagopal R.G. Robinson
Characterisation of Creep Response of Woven Geotextiles	July 2006 to April 2008	Garware Wall Ropes Ltd., Pune	3,24,000	K.Rajagopal

Title of the Project	Duration	Sponsoring Agency	Value of the Project (Rs.)	Coordinators
Investigations on Modern Technologies for Construction of Road/Rail Embankments on Soft Clay	April 2005 to September 2008	MHRD, New Delhi	23,00,000	K. Rajagopal R.G.Robinson C. Lakshmana Rao G. Dodagoudar
Modernisation of Geotechnical Earthquake Engineering Laboratory	April 2003 to March 2006	MHRD, New Delhi	25,00,000	A.Boominathan G.R. Doda Goudar K.Rajagopal S.R. Gandhi
Investigations on the Anchored Retaining Walls for Railway and Highway Applications	April 1998 to October 2000	MHRD, New Delhi	6,00,000	K.Rajagopal R.Sivanandan
Strength and stiffness of Geocell Reinforced Soft Soil Subgrades	April 1997 to May 1999	Netlon India Ltd Vadodara	5,42,000	K. Rajagopal N.R. Krishnaswamy
Geosynthetics in Reinforced Earth Embankments	April 1995 to October 1998	DST, New Delhi	9,83,000	N.R. Krishnaswamy K.Rajagopal S.R. Gandhi A.Boominathan
Modernisation of Geotechnical Engineering Laboratory	April 1995 to March 1997	AICTE, New Delhi	5,00,000	A. Boominathan K.Rajagopal N.R. Krishnaswamy
Investigations on Anchored Retaining Walls	January 1995 to December 1996	IIT Madras	50,000	K.Rajagopal

Number of M. Tech. Projects Guided till date: 35
Number of B.Tech. Projects Guided: 20

Awards/Prizes/Academic Achievements/Honors/Recognition Received

1. **Achievement Award** by International Geosynthetics Society, presented during Geosynthetics Asia Conference, Bangkok, Thailand December 2012.

2. **IGS MD Desai Memorial YGE Best Paper award** for the paper **"**Improvement of Soft Clays by Combined Vacuum Consolidation and Geosynthetic Encased Stone Column" presented at Indian Geotechnical Conference, Kakinada 2014.

3. **IGS-Chennai Chapter Best Paper Award** on Deep Foundations/Retaining Structures for the paper titled "Influence of Rock Socketing on the Lateral Response of Single

Pile" for the years 2012-13, presented at Indian Geotechnical Conference, Kakinada 2014.

4. **IGS_Dr. BB Rai-SN Gupta Best Paper** award for the paper titled "Lateral Earth Pressure Reduction Due to Controlled Yielding Technique" under the category of Earth and Earth-Retaining Structures, Indian Geotechnical Society, New Delhi 2009.

5. **IGS-Chennai Chapter Best Paper award on Deep Foundations/Retaining Structures** for the paper titled "Response of Piles Under Passive Lateral Loads – A Numerical Approach" by V.V.G.S.T. Ramakrishna, S. Karthigeyan and K. Rajagopal published in the Proceedings of IGC-2006 (pp.475-478), Indian Geotechnical Society December 2008 under the category "Deep Foundation/ Retaining Structures".

6. **Commemorative Award** on the occasion of Two Decades of Geosynthetics in India by Central Board of Irrigation and Power in appreciation to the contributions to development and promotion of geosynthetics in India in November 2006.

7. **Best Paper award** for the paper titled "Finite Element Study of the Subsidence in Longwall Coal Mines" published in Journal of Rock Mechanics and Tunnelling Technology in 2001.under the CAD/Software category for the year 2001 from the Indian Society for Rock Mechanics and Tunnelling Technology, New Delhi.

8. **IGS-AFCONS biennial prize** for the best paper on Case Histories for the paper "EarthPressure Reduction Behind Rigid Box Culverts: A Case Study" for the year 2000-2001, Indian Geotechnical Society, New Delhi.

9. **IGS-Z.Tech. biennial prize** for the best paper on Geosynthetics and allied construction products for the paper "Finite Element Analysis of Strip Footing Supported on Geocell Reinforced Sand Beds" published in Indian Geotechnical Journal in the year 2000-2001, Indian Geotechnical Society, New Delhi.

10. **IGS-Dr. Samsher Prakash biennial prize** for the best paper on Soil Dynamics and Vibration problems in Foundation Engineering for the paper "Triaxial Behaviour of Reinforced Clay Under Static and Cyclic Loading" for the year 2001-2002, Indian Geotechnical Society, New Delhi.

11. Elected to the engineering honour society ***Tau Beta Pi*** at the University of Florida, Gainesville, USA for distinguished academic performance.

12. **Institute Merit Prize** for standing first in the graduating class of M.Tech. Ocean Engineering in the year 1981 at IIT Madras.

PUBLICATIONS

Technical Articles in Practice Magazines

1. Construction of High Geosynthetic Reinforced Soil Retaining Walls in India, The Master Builder, November 2014, 134-136.
2. Geosynthetics Lower Carbon Footprint, Infrastructure Today, August 2014, Vol. 12, No. 1, pp. 54-56.

3. Stabilisation of Soft Clays using Vacuum Consolidation Technique, The Masterbuilder, Indian Construction Magazine, October 2008, 150-152.
4. Geosynthetic Encased Stone Columns for load support in soft clay soils, The Masterbuilder, Indian Construction Magazine, February, 2009, 88-92.
5. Modern Ground Improvement Techniques, Science and Technology Weekly Supplement of Hindu News paper April 1996.

National Journals/Book Chapters

1. Nithin, S., Rajagopal, K. and Veeraragavan (2015) State-of-the Art Summary of Geosynthetic Interlayer Systems for Retarding the Reflective Cracking, Indian Geotechnical Journal, Springer, DoI: http://www.springer.com/-/6/AU76z_QmxIV6JZQW7JQh
2. Ganesh Kumar, S., Sridhar, G., Radhakrishnan, R., Robinson, R.G., Rajagopal, K. (2015) A Case Study Of Vacuum Consolidation Of Soft Clay Deposit, Indian Geotechnical Journal, Springer Publishers, Vol. 45, No. 1, 51-61.
3. Ganesh Kumar, S., Robinson, R.G. and Rajagopal, K. (2014) Improvement of Soft Clays by Combined Vacuum Consolidation and Geosynthetic Encased Stone Columns, Indian Geotechnical Journal, Springer, 44 (1), 59-67.
4. Bhasi, Anjana and Rajagopal, K. (2013) Study of the Effect of Pile Type used for Supporting basal reinforced Embankments on Soft Clay, Indian Geotechnical Journal, Springer, Vol. 43, No. 4, 344-353.
5. Rajagopal, K. and Murugesan, S. (2012) "Analysis and Design Methods for Encased Stone Columns", Chapter 30, Advances in Geosynthetics, Sai Master Environmental Services Pvt. Ltd., Hyderabad, 437-458.
6. Bhasi, Anjana and Rajagopal, K. (2012) "A Comparative Study on the Performance of Piled Embankments with and without the Geosynthetic Reinforcement", Indian Journal of Geosynthetics and Ground Improvement, Vol. 1, No. 2, pp 1-6.
7. Karthigeyan, S., and Rajagopal, K. (2012) "Influence of Rock Socketing on the Lateral Response of Single Pile", Indian Geotechnical Journal, Vol. 42, No. 1, 49-55.
8. Sridhanya, K.V., Rajagopal, K. and Lakshmana Rao, C. (2009) "Modelling of Degradation of Clayey Soils under Repeated Loading", Indian Geotechnical Journal, Vol. 39, No. 2, 139-152.
9. Purnanandam, K. and Rajagopal, K. (2008) Lateral Earth Pressure Reduction Due To Controlled Yielding Technique, Indian Geotechnical Journal, Vol. 38, No. 3, 317-333.
10. Sajna Sayed, Dodagoudar, G.R. and Rajagopal, K. (2008) "Reliability Analysis of Reinforced Soil Walls", Indian Geotechnical Journal, Vol. 38, No. 1, 49-67.
11. Unnikrishnan, N., Rajagopal, K. and Krishnaswamy, N.R. (2002) "Triaxial Behaviour of Reinforced Clay Under Static and Cyclic Loading", Indian Geotechnical Journal, Vol. **32**, No. 3, 216-234.
12. Rajagopal, K. and Ramakanth, P.L.S. (2001) "Finite Element Study of the Subsidence in Longwall Coal Mines", J. of Rock Mechanics and Tunnelling Technology, Vol. **7**, No. 2, 93-111.
13. Madhavi Latha, G., Dash, S.K., Rajagopal, K. and Krishnaswamy, N.R. (2001) "Finite Element Analysis of Strip Footing Supported on Geocell Reinforced Sand Beds", Indian Geotechnical Journal, Vol. **31**, No. 4, 454-478.
14. Rajagopal, K. and Sri Hari, V. (1998) "Experimental Investigation on Pullout Capacity of Vertical Anchors," *Indian Geotechnical Journal*, **28**, No. 2, 147-166.
15. Rajagopal, K. and Sri Hari, V. (1998) "Experimental Study on Retaining Walls Supported by Vertical Plate Anchors," *Indian Geotechnical Journal*, **28**, No. 3, 270-296.

International Journals/Book Chapters

1. Anjana Bhasi and Rajagopal, K. (2015) Numerical study of basal reinforced embankments supported on floating/end bearing piles considering pile-soil interaction, accepted for publication in the special issue "*Soft Ground Improvement with Geosynthetics*" journal of Geotextiles and Geomembranes (accepted in May 2015)
2. Dodagoudar, G., Sajna, S. and Rajagopal, K. (2015) Random field modeling of reinforced retaining walls, International Journal of Geotechnical Engineering, Vol. 9, No. 3, pp. 229-238.
3. Anjana Bhasi and Rajagopal, K. (2014) Geosynthetic-Reinforced Piled Embankments: Comparison of Numerical and Analytical Methods, ASCE International Journal of Geomechanics, DoI: 10.1061/(ASCE)GM.1943-5622.0000414.

4. Rajagopal, K., Chandramouli, S., Parayil, A. and Iniyan, K. (2014) Studies On Geosynthetic Reinforced Road Pavement Structures, International Journal of Geotechnical Engineering, W.S. Maney & Sons, UK., Vol. 8, No. 3, 287-298.
5. Bhasi, A. and Rajagopal, K. (2013) "Numerical investigation of the time dependent behaviour of geosynthetic reinforced piled embankments", International Journal of Geotechnical Engineering, W.S. Maney & Sons Publishing, Vol. 7, No. 3, 232-240.
6. Jayasree, K.P., Rajagopal, K. and Gnanendran, C.T. (2012) Influence of Sidewall Friction on the Results of Small-Scale Laboratory Model Tests: Numerical Assessment. ASCE International Journal of Geomechanics, Vol. 12, No. 2, 1-8.
7. Bhasi, A. and Rajagopal, K. (2010) Finite element study of the influence of pile jetting on load capacity of adjacent piles, International Journal of Geotechnical Engineering, J. Ross Publishing Inc., Vol. 4, No. 3, 361-370.
8. Boominathan, A., Rangaswamy, K. and Rajagopal, K. (2010) Effect of non-plastic fines on liquefaction resistance of Gujarat Sand, International Journal of Geotechnical Engineering, J. Ross Publishing Inc., Vol. 4, No. 2, 241-253.
9. Sajna, S., Dodagoudar, G. and Rajagopal, K. (2010) Finite element reliability analysis of reinforced retaining walls, Geomechanics and Geoengineering, Taylor & Francis, Vol. 5, No. 3, 187-197.
10. Murugesan, S. and Rajagopal, K. (2010) "Studies on the Behavior of Single and Group of Geosynthetic Encased Stone Columns", ASCE Journal of Geotechnical and Geoenvironmental Engineering, Vol. 136, No. 1, 1-11.
11. Murugesan, S. and Rajagopal, K. (2009) Shear Load Tests On Stone Columns With And Without Geosynthetic Encasement, ASTM Geotechnical Journal, Vol. 32, No. 1, 76-85.
12. Madhavi Latha, G., Dash, S.K. and Rajagopal, K. (2009) Numerical Simulation of the Behaviour of Geocell Reinforced Sand in Foundations, ASCE International Journal of Geomechanics, Vol. 9, No. 143-152.
13. Jayalekshmi, S. and Rajagopal, K. (2009) Failure surcharge pressures and FE Analyses of a reinforced retaining wall, accepted for publication in the journal International Journal of Earth Science and Engineering.
14. Jayalekshmi, S. and Rajagopal, K. (2009) Modelling of geosynthetics using True Findley and Onaran and Findley models, International Journal of Geotechnical Engineering, J. Ross Publishing Inc., Vol. 3, No. 3, 405-415.
15. Sajna S. Dodagoudar, G. and Rajagopal, K. (2008) Reliability Analysis of Reinforced Soil Walls Under Static and Seismic Forces, Geosynthetics International, Vol. 15, 246-257.
16. Madhavi Latha, G., Dash, S.K. and Rajagopal (2008) "Equivalent Continuum Simulations of Geocell Reinforced Sand Beds Supporting Strip Footings, Geotechnical and Geological Engineering, Springer, Vol. 26, 387-398.
17. Murugesan, S. and Rajagopal, K. (2007) "Model Tests on geosynthetic-encased stone columns", Geosynthetics International, Vol. 14, No. 6, 346-354.
18. Dash, S.K., Rajagopal, K. and Krishnaswamy, N.R. (2007) Behaviour of geocell-reinforced sand beds under strip loading, Canadian Geotechnical Journal, NRC Press, Vol. 44, 905-916.
19. Madhavi Latha, G. and Rajagopal, K. (2007) Parametric finite element analysis of geocell supported embankments, Canadian Geotechnical Journal, NRC Press, Vol. 44, 917-927.
20. Karthigeyan, S. Ramakrishna, VVGST, Rajagopal, K. (2007) Numerical Investigation of the Effect of Vertical Load on the Lateral Response of Piles, J. of ASCE Geotechnical and Geoenvironmental Engineering, Vol. 133, No. 5, 512-521.
21. Karthigeyan, S., Ramakrishna, VVGST, and Rajagopal, K. (2007) Discussion closure on the paper "Influence of vertical load on the lateral response of piles in sand" J. of Computers and Geotechnics, Vol. 34, No. 6, p.540
22. Karthigeyan, S., Ramakrishna, VVGST, and Rajagopal, K. (2006) "Influence of vertical load on the lateral response of piles in sand", Journal of Computers and Geotechnics, Vol. 33, 121-131.
23. Murugesan, S. and Rajagopal, K. (2006) "Geosynthetic encased stone columns: Numerical Evaluation", Journal Geotextiles and Geomembranes, Vol. 24, 349-358.
24. Madhavi Latha, G., Rajagopal, K. and Krishnaswamy, N.R. (2006) "Experimental and Theoretical Investigations on Geocell Supported Embankments", ASCE International Journal of Geomechanics, January-February Vol. 6, No. 1, 30-35.
25. Dash, S.K., Rajagopal, K. and Krishnaswamy, NR. (2004) Performance of different geosynthetic reinforcement materials in sand foundations, J. Geosynthetics International, Vol. 11, No. 1, 35-42.
26. Unnkrishnan, N., Rajagopal, K. and Krishnaswamy, N.R. (2002) "Behaviour of reinforced clay under monotonic and cyclic loading", *J. of Geotextiles and Geomembranes*, Vol. **20**, No. 2, 117-133.
27. Dash, S.K., Krishnaswamy, N.R. and Rajagopal, K.(2001) "Bearing Capacity of Strip Footings Supported on Geocell-Reinforced Sand", *J. of Geotextiles and Geomembranes*, Vol. **19**, 235-256.

28. Dash, S.K., Rajagopal, K. and Krishnaswamy, N.R. (2001) "Strip footing on geocell reinforced sand beds with additional planar reinforcement", *J. of Geotextiles and Geomembranes*, Vol. **19**, 529-538.
29. Rajagopal, K., Krishnaswamy, N. R. and Madhavi Latha, G. (1999) "Behaviour of Sand Confined with Single and Multiple Geocells," *J. of Geotextiles and Geomembranes*, **17**, No. 3, 171-184.
30. Krishnaswamy, N. R., Rajagopal, K. and Madhavi Latha, G. (1999) "Model Studies on Geocell Supported Embankments Constructed Over Soft Clay Foundation," *ASTM Geotechnical Testing Journal* Vol. **23**, No. 1, 45-54.
31. Rajagopal, K. and Bathurst, R.J. (1995) "Behaviour of Geosynthetic Reinforced Soil Retaining Walls Using the Finite Element Method," *Computers and Geotechnics*, **17**, No. 3, 279-299.
32. Rajagopal, K. and Yogendrakumar, M. (1993) "A Kinematic Model for Dynamic Analysis of Space Frames," *J. of Computers and Structures*, **47**, No. 5, 945-955.
33. Rajagopal, K. and Bathurst, R.J. (1993) "Development of a Finite Element Analysis Post-processing Program," *Advances in Engineering Software*, Vol. **16**, 15-22.
34. Bathurst, R.J. and Rajagopal, K. (1993) "Large-Scale Triaxial Compression Testing of Geocell-Reinforced Granular Soils," *ASTM Geotechnical Testing Journal, ASTM*, **16**, No. 3, 296-303.
35. Rajagopal, K. and Bathurst, R.J. (1992) "Numerical Investigation of Controlled Yielding Methods in Rigid Retaining Walls," *J. of Geotextiles and Geomembranes*, **10**, No. 2, 115-131.
36. Bathurst, R.J., Rajagopal, K. and Jarrett, P.M. (1992) "Finite Element Analysis of Geogrid Reinforced Soil Walls," *Grouting, Soil Improvement and Geosynthetics*, ASCE Geotechnical Special Publication **30**, Vol. 2, 1213-1224.
37. Raymond, G.P., Abdel-Baki, M.S.A., Rajagopal, K. and Bathurst, R.J. (1992) "Improvement from Reinforcement of Soil Below Eccentrically Loaded Footings," *Grouting, Soil Improvement and Geosynthetics*, ASCE Geotechnical Special Publication **30**, Vol. 2, 1104-1115.
38. Rajagopal, K., Selvadurai, A.P.S., and Tanoesoedibjo, R.E.S. (1990) "Consolidation Response of Symmetrically Loaded Strip Footing on a Poroelastic Layer," *J. of Computers and Geotechnics*, **9**, 171-184.
39. Selvadurai, A.P.S. and Rajagopal, K. (1989) "A Composite Infinite Element for Modelling Unbounded Saturated Soil Media," *ASCE Journal of Geotechnical Engineering*, **115**, No. 11, 1633-1646.
40. Rajagopal, K. (1988) "Composite Infinite Element for Analysis of Unbounded Two-phase Media," *J. of Advances in Engineering Software*, **10**, No. 4, 202-209.
41. Rajagopal, K. and Bathurst, R.J. (1988) "Comparative Analysis of Some Geomechanics Problems using Finite and Infinite Element Methods," *J. of Computers and Geotechnique*, **5**, No. 4, 269-284.
42. Reddy, D.V. and Gopal, K.R. (1986) "Endochronic Constitutive Modelling of Fibre Reinforced Concrete," Chapter 6 in the book *Computational Modelling of Reinforced Concrete Structures*, Eds. E. Hinton and D.J.R.S. Owen, Pineridge Press Limited, Swansea, U.K. 154-186.

PATENT APPLICATION

A Novel Method for Making a Gabion box mediated Reinforcement System, New Delhi, June 25, 2012 (filed along with Gabion Technologies India Private Limited, New Delhi).

CONFERENCES

Published more than 150 papers in national and international conferences. Gave key note lectures at several national conferences. Attended many prestigious international conferences all over the world. Invited as a panelist/chair-person/co-chair of sessions at Asian Regional Conferences, ISSMGE conferences and International Geosynthetic Conferences.

INDUSTRY INTERACTION

Provided consultancy services to several geosynthetic and geotechnical industries in India for the design of steep slopes, retaining walls, ground improvement, recommendation of design parameters based on laboratory tests, etc. Some of the laboratory facilities on creep testing of geosynthetics, large-scale laboratory apparatus for connection strength and pullout behavior of geosynthetics at IIT Madras are unique in India.