

CURRICULUM VITÆ



Sanjay Kumar Shukla, *PhD (IIT Kanpur), MTech (IIT Kanpur), BSc Eng (BIT Sindri), FIEAust, FIE(India), FIGS, MASCE, MIGS, MIRC, MISRMTT, MISTE, MCAI*

Associate Professor and Founding Program Leader, Discipline of Civil Engineering

Founding Group Leader, Geotechnical and Geoenvironmental Research Group

School of Engineering, Edith Cowan University, Perth, Australia

Contact Information

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Discipline of Civil Engineering
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Specialization

Civil Engineering (Geotechnical Engineering)

Educational Qualifications

PhD (1995) in Civil Engineering (Geotechnical Engineering) from the Indian Institute of Technology, Kanpur, India

Thesis: Foundation model for reinforced granular fill – soft soil system and its settlement response [Ground Engineering: Soil Reinforcement, Foundation Modelling, Geosynthetics]

MTech (1992) in Civil Engineering (Engineering Geology) from the Indian Institute of Technology, Kanpur, India

Thesis: Mineralogical and strength changes during soil – fly ash – lime – gypsum stabilization [Soil Stabilization, Clay Mineralogy]

BSc Eng (1988) in Civil Engineering from the Bihar Institute of Technology, Sindri, Ranchi University, Ranchi, India

Project: Engineering properties of rocks of Jharia coal-field area [Rock Mechanics, Rock Engineering,]

Teaching and Research Positions Held

January 2010 – present	Associate Professor and Founding Program Leader Discipline of Civil Engineering, School of Engineering Edith Cowan University, Joondalup, Perth, WA, Australia
April 2009 – Jan. 2010	Senior Lecturer and Founding Program Leader Discipline of Civil Engineering, School of Engineering Edith Cowan University, Joondalup, Perth, WA, Australia
Oct. 2008 – August 2011	<i>Adjunct Associate Professor</i> Discipline of Civil and Environmental Engineering School of Engineering and Physical Sciences James Cook University, Townsville, Queensland, Australia
April 2008 – Oct. 2008	<i>Visiting Scholar</i> Discipline of Civil and Environmental Engineering School of Engineering and Physical Sciences James Cook University, Townsville, Queensland, Australia
Oct. 2005 – April 2012	<i>Reader/Associate Professor</i> Department of Civil Engineering Indian Institute of Technology (BHU), Varanasi, India
Aug. 2003 – Oct. 2005	<i>Senior Lecturer</i> Indian Institute of Technology (BHU), Varanasi, India
Aug. 2002 – Aug. 2003	<i>Lecturer</i> Indian Institute of Technology (BHU), Varanasi, India
Sept. - Oct. 2005 June - July 2004 Sept. - Oct. 2003 May-June 2002	<i>Visiting Scholar</i> Department of Civil and Structural Engineering The Hong Kong Polytechnic University Hong Kong
Dec. 1998 – Aug. 2002	<i>Lecturer</i> Department of Civil Engineering Harcourt Butler Technological Institute Kanpur, India
Feb. 1996 – Dec. 1998	<i>Lecturer</i> Department of Civil Engineering North Eastern Regional Institute of Science & Technology Nirjuli, Itanagar, India
May 1995 – Feb. 1996	<i>Senior Project Associate</i> Department of Civil Engineering Indian Institute of Technology Kanpur Kanpur, India

Sept. 1989 – Dec. 1990 *Lecturer*
Department of Civil Engineering
Bihar Institute of Technology
Sindri, India

Areas of Research Interests

- Geosynthetics and Their Applications
- Soil-Structure Interaction
- Static and Dynamic Earth Pressures
- Soil Arching and Buried Structures
- Ground Improvement Methods
- Rock Slope Stability and Mining Geotechnics
- Pavement Geotechnics
- Environmental Geotechnics

Major Research Contributions and Their Main Subject Areas

- Runway deflection during landing of an aircraft [Pavement Engineering]
- Field values of compaction test parameters [Soil Mechanics, Ground Improvement Methods]
- Concept of Poisson's ratio at zero strain [Physics, Geosynthetic Engineering]
- Dynamic active earth pressure from $c-\phi$ soil backfills [Soil Dynamics, Earthquake Engineering, Foundation Engineering]
- Dynamic passive earth pressure from $c-\phi$ soil backfills [Soil Dynamics, Earthquake Engineering, Foundation Engineering]
- Fundamental concept of arching in soils [Soil Mechanics]
- Analytical model for fiber-reinforced granular soils [Reinforced Soil Engineering]
- Time-dependent expression for subgrade reaction of saturated cohesive foundation soils [Soil Mechanics, Foundation Engineering]
- Load on ditch conduits covered with geosynthetic-reinforced granular backfills [Soil Mechanics, Geosynthetic Engineering]
- Stresses in vertical and inclined mine stopes [Mining Geotechnics]
- Stresses in storage vessels such as hoppers, silos, bunkers, bins, etc. [Chemical Engineering, Mining Engineering, Mechanical Engineering, Material Science and Engineering]
- Slope stability of the prestressed geosynthetic-reinforced embankment [Slope Engineering, Soil Mechanics, Geosynthetic Engineering]
- Analytical expression for geosynthetic strain due to deflection [Geosynthetic Engineering]
- Seismic stability analysis of anchored-rock slopes [Rock Mechanics, Rock Engineering, Earthquake Engineering]
- New foundation model for geosynthetic-reinforced foundation soils [Soil-Structure Interaction, Geosynthetic Engineering, Foundation Engineering]
- CBR correlations for the compacted fly ash [Soil Mechanics and Environmental Geotechnics]
- Field application guidelines for geosynthetic applications in pavements [Geosynthetic Engineering, Pavement Geotechnics]

- Strength development during soil – fly ash – lime – gypsum stabilization [Engineering Geology, Ground Improvement Methods, Environmental Geotechnics]
- Prestressing concept for geosynthetic applications [Geosynthetic Engineering]
- Evaluation of transmissivity and permittivity of geotextiles [Geosynthetic Engineering]
- Effects of compaction energy on the geotechnical properties of fly ash [Soil Mechanics, Environmental Geotechnics]
- Strength behaviour of bamboo-reinforced soil [Reinforced Soil Engineering]
- Explanation of soil-reinforcement mechanisms [Geosynthetic Engineering, Reinforced Soil Engineering]
- New mechanical model for foundation and its elastic settlement response [Soil-Structure Interaction, Foundation Engineering]
- Effects of detergent on strength behavior of soil [Environmental Geotechnics]

Awards and Honours

- *Executive Dean's Award* (2011) from the Faculty of Computing, Health and Science, Edith Cowan University, Perth, Western Australia, Australia in recognition of establishing the teaching and research infrastructure for Civil Engineering.
- *Award of Excellence* (2011) from the School of Engineering, Faculty of Computing, Health and Science, Edith Cowan University, Perth, Western Australia, Australia for outstanding research publications.
- *Vishwakarma Award* (2007) from the Akhil Bharatiya Vidhwat Parishad, India for the best technical contribution in the form of a book entitled “Fundamentals of Geosynthetic Engineering” published by Taylor and Francis, London in 2006.
- *Indra Joshi Best Paper Award* (1996) from the *Indian Geotechnical Society* for the paper entitled “Effect of prestressing on settlement of geosynthetic-reinforced foundation soil” published in the Proceedings of the Indian Geotechnical Conference – 1995, Bangalore, India.
- *Indian Government Ph.D. Scholarship*, July 1992 – May 1995.
- *Indian Government Postgraduate Scholarship*, December 1990 – June 1992.
- *Bihar State Government Undergraduate Scholarship*, July 1984 – June 1988.
- *First Class with Distinction* in BSc Eng, 1988.

Scholarly Activities and Service to Profession

- *Editorial Board Member* of the International Journal of Geotechnical Engineering, USA.
- *Core Member* of the International Committee on Filtration, International Geosynthetics Society, USA.
- *Invited Reviewer* for the International Journals including the following:
 - Geotechnique
 - Geosynthetics International
 - Geotechnical and Geoenvironmental Engineering, ASCE
 - Canadian Geotechnical Journal
 - International Journal of Geomechanics, ASCE
 - Journal of Materials in Civil Engineering, ASCE
 - Geotechnical and Geological Engineering, An International Journal

- ICE Geotechnical Engineering Journal
 - International Journal of Geotechnical Engineering
 - Structural Engineering and Mechanics, An International Journal
 - Journal of Environmental Management
 - Journal of Zhejiang University – Science A
 - Australian Journal of Civil Engineering
 - Geomechanics and Engineering, An International Journal
 - Indian Geotechnical Journal
 - Environmental Earth Sciences
 - Journal of Environmental Management
 - Journal of Mountain Science
- *Founding Honorary Secretary*, Indian Geotechnical Society, Varanasi Chapter, India, 2005 – 2007.
 - *Chairman*, Indian Geotechnical Society, Varanasi Chapter, India, 2007 – 2009.
 - *Geotechnical Engineering Consultant*: Providing consultancy services to private and government organizations.
 - *Short course expert*: Conducting several short courses for practicing engineers, specialized contractors and other engineering professionals.
 - *Member/Organizing Secretary/Organizing Chairman/Technical Session Chairman*: Leading/participating in the organization of workshops/conferences, and chairing national and international technical sessions.

Professional Affiliations

- *Fellow* of the Institution of Engineers Australia
- *Life Fellow* of the Institution of Engineers (India)
- *Life Fellow* of the Indian Geotechnical Society
- *Member* of the American Society of Civil Engineers
- *Member* of the International Geosynthetics Society
- *Life Member* of the Indian Roads Congress
- *Life Member* of the Indian Society for Rock Mechanics and Tunneling Technology
- *Life Member* of the Indian Society for Technical Education
- *Life Member* of the Coal Ash Institute of India

Individuals with Whom Research/Academic Collaborations Established

Universities (USA/Canada/Australia/Singapore/UK/India/Portugal/Brazil/UAE):

- Professor Braja M. Das, Dean Emeritus, College of Engineering and Computer Science, California State University, Sacramento, California, USA
- Professor Richard J. Bathurst, GeoEngineering Centre at Queen's-RMC, Department of Civil Engineering, Royal Military College of Canada, Kingston, Ontario, Canada
- Professor T. S. Ingold, Founding Editor of the Geotextiles and Geomembranes, UK, and the Geosynthetics International, UK, Mulberry Lodge, St Peters Close, St Albans, Hertfordshire, UK
- Professor P. L. Bourdeau, School of Engineering, Purdue University, West Lafayette, USA

- Professor S. W. Perkins, Department of Civil Engineering, Montana State University, Bozeman, USA
- Professor A. Bouazza, Department of Civil Engineering, Monash University, Melbourne, Australia
- Professor M-Lurdes Lopes, Department of Civil Engineering, Faculty of Engineering, Porto University, Porto, Portugal
- Professor Ennio M. Palmeira, Department of Civil and Environmental Engineering – FT, University of Brasilia, Brasília, DF, Brazil
- Professor D. N. Singh, Department of Civil Engineering, Indian institute of Technology Bombay, Powai, Mumbai, India
- Professor Jeff Loughran, Pro-Vice Chancellor, Faculty of Science and Engineering, James Cook University, Townsville
- Professor J. N. Jha, Department of Civil Engineering, Guru Nanak Dev Engineering College, Ludhiana, Punjab, India
- Dr. N. Sivakugan, Associate Professor and Head, Civil and Environmental Engineering, School of Engineering and Physical Sciences, James Cook University, Townsville
- Dr. S. A. (Harry) Tan, Associate Professor, Department of Civil Engineering, National University of Singapore, Singapore
- Dr. Ahmet H. Aydilek, Associate Professor, Department of Civil and Environmental Engineering University of Maryland, Maryland, USA
- Dr. M. C. Alfaro, Associate Professor and Associate Head, Department of Civil Engineering, University of Manitoba, Winnipeg, Canada
- Dr. Ming-Han Li, Associate Professor, Department of Landscape Architecture and Urban Planning, College of Architecture, Texas A&M University, College Station, Texas, USA
- Dr. A. K. Ashmawy, School of Engineering, American University in Dubai, UAE
- Dr. Dali Naidu Arnepalli, Assistant Professor, Department of Civil Engineering, Indian Institute of Technology Madras, Chennai, India
- Dr. V.A. Sawant, Assistant Professor, Department of Civil Engineering, Indian Institute of Technology, Roorkee, India
- Dr. Kianoosh Hatami, Assistant Professor, School of Civil Engineering and Environmental Science, University of Oklahoma, Norman, USA

Industries/Research Institutions (USA/Italy/France/Australia/Germany/Switzerland):

- Mr. R. R. Berg, Ryan R. Berg and Associates, Inc., Woodbury, Minnesota, USA
- Dr. D. Cazzuffi, IGS Past President, CESI SpA, Via Rubattino, Milano, Italy
- Dr. B. R. Christopher, Christopher Consultants, Roswell, Georgia, USA
- Dr. C. Duquennoi, Hydrosystems and bioprocesses research unit, Cemagref, Parc de Tourvoie, ANTONY Cedex, France
- Dr. N. Touze-Foltz, Hydrosystems and bioprocesses research unit, Cemagref, Parc de Tourvoie, ANTONY Cedex, France
- Dr. Erwin Gartung, LGA, Geotechnical Institute, Nuremberg, Germany
- Mr. Warren Hornsey, National Technical Manager, Geofabrics Australasia Pty Ltd, Gold Coast, Australia
- Mr. G. Heerten, NAUE GmbH & Co KG, Espelkamp, Germany
- Dr. L. Peyras, Hydrosystems and bioprocesses research unit, Cemagref, Parc de Tourvoie, ANTONY Cedex, France
- Dr. D. Poulain, Hydrosystems and bioprocesses research unit, Cemagref, Parc de Tourvoie,

ANTONY Cedex, France

- Dr. A. Scuero, Carpi Tech BV, Via Passeggiata 1, CH-6828 Balerna, Switzerland
- Dr. G. Vaschetti, Carpi Tech BV, Balerna, Switzerland
- Mr. Helmut Zanzinger, SKZ - TeConA GmbH, Wuerzburg, Germany

Subjects/Courses/Units Taught at Undergraduate Level

Specialized:

- Soil Mechanics
- Foundation Engineering
- Engineering Geology
- Rock Mechanics
- Soil Dynamics
- Earth Retaining Structures
- Transportation Engineering (Highway, Airport and Railway Engineering)
- Ground Improvement Techniques*
- Earth Slope Stability and Landslides*
- Geosynthetics in Civil Engineering[#]

* I developed and introduced these two subjects in the 4th year of undergraduate programme as elective subjects.

[#] I developed and introduced this subject in undergraduate programmes. Moreover, I have three books in this area, published by the reputed international publishers (*Thomas Telford, London; ICE Publishing, London; Taylor and Francis, London*).

General:

- Fluid Mechanics, Engineering Mechanics
- Engineering Drawing
- Surveying and Site Measurements
- Steel Design
- Building Materials and Construction
- Engineering Mathematics
- Numerical Methods

Subjects/Courses Taught at Postgraduate Level

- Advanced Soil Mechanics
- Advanced Foundation Engineering
- Ground Improvement Techniques
- Rock Mechanics
- Soil-Structure Interaction
- Geosynthetics and Their Applications**
- Soil Dynamics
- Environmental Geotechnique
- Numerical Methods

** I developed and introduced this subject in the Postgraduate Programmes. Moreover, I have three books in this area, published by the reputed international publishers (*Thomas Telford, London; ICE Publishing, London; Taylor and Francis, London*).

Laboratory and Field Testing Experience

Specialized:

- Engineering Geology Laboratory Tests
- Geotechnical Engineering Laboratory Tests on Soils and Rocks
- In Situ Tests on Soils and Rocks
- Highway Engineering Laboratory Tests on Granular and Bituminous Materials
- Geosynthetic Engineering Laboratory Tests on Geosynthetics
- X-Ray Diffraction and Electron Microscopic Studies on Soil-Cement Stabilization

General:

- Fluid Mechanics Laboratory Tests
- Engineering Drawing
- Tests on Cement
- Field Survey Works – Chain surveying, Compass Surveying, Plane Table Surveying, Levelling, Theodolite/Total Station Surveying, etc.

Leadership Roles and Administrative Experience

General:

- *Founding Program Leader*, Discipline of Civil Engineering, School of Engineering, Edith Cowan University, Perth, Western Australia, Australia [April 2009 – present]
- *Founding Group Leader*, Geotechnical and Geoenvironmental Engineering Research Group, Discipline of Civil Engineering, School of Engineering, Edith Cowan University, Perth, Western Australia, Australia [April 2009 – present]
- *Acting Head*, School of Engineering, Edith Cowan University, Perth, Western Australia, Australia [Several times for short periods]
- *Member*, Faculty International Committee, Faculty of Computing, Health and Science, Edith Cowan University, Western Australia, Perth, Australia [July 2009 – present]
- *Member*, School Management Committee, School of Engineering, Edith Cowan University, Western Australia, Perth, Australia [May 2011 – present]
- *Member*, School of Engineering's Consultative Committee, Faculty of Computing, Health and Science, Edith Cowan University, Western Australia, Perth, Australia [April 2012 – present]
- *Hostel Warden*, Indian Institute of Technology (BHU), Varanasi, India (approx. 4 years, successfully managed the hostel works for about 200 students and 25 staff members)
- *Secretary* of the Civil Engineering Departmental Council with sanctioned strength of 52 faculty members, Indian Institute of Technology (BHU), Varanasi, India (approx 4 years)
- *Professor-in-Charge* of the Civil Engineering Departmental Time-Table, Indian Institute of Technology (BHU), Varanasi, India (approx 4 years)
- *Member*, Civil Works Committee, Banaras Hindu University, Varanasi, India (approx 3 years)
- *Member*, Library Committee, Indian Institute of Technology (BHU), Varanasi, India (approx 1 year)

- *Hostel Warden*, Harcourt Butler Technological Institute, Kanpur, India (approx. 3 years, successfully managed the hostel works for about 180 students and 20 staff members)
- *Founding Coordinator* of the Faculty of the Natural Disaster Management, North Eastern Regional Institute of Science and Technology, Nirjuli, Itanagar, India (approx 2 years)
- *Examination and Other Committee Members* of many regular academic and professional programmes at several Engineering Colleges, Institutes, Universities, Public Service Commissions, etc.

Laboratory:

- *Professor-in-Charge* of the Civil Engineering Laboratories including Geotechnical and Pavement Engineering Laboratory, Water Resources and Environmental Engineering Laboratory, Concrete and Construction Material Engineering Laboratory, and Surveying Engineering Laboratory; all these laboratories have been established under my supervision for the new undergraduate and postgraduate programmes in Civil Engineering at the School of Engineering, Edith Cowan University, Perth, Western Australia, Australia. (April 2009 - present)
- *Professor-in-Charge* of the Civil Engineering Departmental Computer Laboratory, Indian Institute of Technology (BHU), Varanasi, India (approx 2 years)
- *Professor-in-Charge* of the Highway Engineering Laboratory, Harcourt Butler Technological Institute, Kanpur, India (approx 4 years)
- *Professor-in-Charge* of the Engineering Geology Laboratory, North Eastern Regional Institute of Technology, Nirjuli, Itanagar, India (approx 2 years)
- *Professor-in-Charge* of the Geotechnical Engineering Laboratory, North Eastern Regional Institute of Technology, Nirjuli, Itanagar, India (approx 2 years)

Short Courses Organized/Recent Expert Lectures Delivered

- Expert Lectures on “*Geosynthetics for the Slope Stabilization*” held at the Snow & Avalanche Study Establishment, Defence Research & Development Organization (DRDO), Chandigarh, India; December 20, 2007.
- Short Course on “*Applications of Geosynthetics in Road Construction*” held at the Department of Civil Engineering, Institute of Technology, Banaras Hindu University, Varanasi, India; November 22 - 23, 2007.
- Short course on “*Construction of Earthen Embankments*” held at the Training Centre, Hindalco Industries Limited, Renusagar, Uttar Pradesh, India; July 27-28, 2006.
- Short Course on “*Geosynthetics in Construction of Roads*” held at the Public Works Department, Raipur, Chhatisgarh, India; August 28, 2005.
- Short Course on “*Introduction to Geosynthetics*” held at the Department of Civil Engineering, Institute of Technology, Banaras Hindu University, Varanasi, India; May 10-11, 2003.
- Short Course on “*Earth Slope Stability and Landslides*” held at Guwahati, India being a faculty member in the Department of Civil Engineering, Harcourt Butler Technological Institute, Kanpur, India; May 25-28, 1999.
- Short Course on “*Ground Improvement Techniques*” held at the Department of Civil Engineering, North Eastern Regional Institute of Technology, Itanagar, India; July 24-29, 1997.

Seminars/Workshops/Conferences Organized

- *Member, Technical Committee*, 1st Australasia and South East Asia Conference in Structural Engineering and Construction (ASEA-SEC-1), 28 November – 2 December, 2012, Perth, Western Australia, Australia.
- *Chairman*, Technical Session 9, Ground Improvement and Soil Stabilization, International Conference on Advances in Geotechnical Engineering (ICAGE), 7 – 9 November 2011, Perth, Western Australia, Australia.
- *Chairman* of the National Seminar on “Developments in Geotechnical Engineering for Applications in Pavement, Embankment and Retaining Wall Construction” organized by the Indian Geotechnical Society, Varanasi Chapter, Varanasi, India; November 13, 2008.
- *Chairman* of the National Seminar on “Slope Stability Analysis and Stabilization” organized by the Indian Geotechnical Society, Varanasi Chapter, India at the Central Excavation Training Institute, Northern Coalfields Limited, Singrauli, Sidhi, MP, India; October 29, 2007
- *Member, Organizing Committee* of the Workshop on “Design and Construction of Confined Brick Masonry Buildings”, organized by the Department of Civil Engineering, Institute of Technology, Banaras Hindu University, Varanasi, India; February 3-4, 2007.
- *Member, Organizing Committee*, and *Member, Technical Paper Review Committee* of the All India Seminar on “Earthquake Resistant Design, Construction, Retrofitting and Rehabilitation of Buildings”, organized by the Department of Civil Engineering, Institute of Technology, Banaras Hindu University, Varanasi, India; February 18-19, 2006.
- *Member, Organizing Committee* of the 22nd Convention on “Environmental Engineering with Special Emphasis on Cost Recovery and Pricing of Services”, jointly organized by the Department of Civil Engineering, Institute of Technology, Banaras Hindu University, Varanasi, India, and the Institution of Public Health Engineers, India; December 9-11, 2005
- *Organizing Secretary* of the Second National Seminar on “Recent Developments in Civil Engineering Practice” organized at the Department of Civil Engineering, Institute of Technology, Banaras Hindu University, Varanasi, India; February 19, 2005.

Major Projects with Grants

1. **Shukla, S.K.**, Wu, H.Y.M., Yadav, D.K., Nosaka, K. and Blazeovich, A. (2010). Infrastructural Development Project, Faculty of Computing, Health and Science, Edith Cowan University, Joondalup, Perth, WA, Australia.
2. **Shukla, S.K.** (2009). Technical Opinion with Recommendations for the Cut-off Level of the Proposed Drainage Crossings at Chainages (in km) 60.800 and 61.050 of the Meja Jirgo Link Canal in Mirzapur District (U.P.), Department of Civil Engineering, Indian Institute of Technology (BHU), Varanasi, India.
3. **Shukla, S.K.** (2008). Subsurface Investigation and Recommendations on the Allowable Load-Bearing Pressure for Design of Foundations for Aqueduct at Chainage (in km) 8.300 along the Alignment of Adwa-Meja Link Channel in Mirzapur District (U.P.), Department of Civil Engineering, Indian Institute of Technology (BHU), Varanasi, India.
4. **Shukla, S.K.** (2008). Subsurface Investigation and Recommendations on the Allowable Load-Bearing Pressure for Design of Foundations for Aqueduct at Chainage (in km) 67.800 along the Alignment of Meja-Jirgo Link Channel in Mirzapur District (U.P.), Department of Civil Engineering, Indian Institute of Technology (BHU), Varanasi, India.

5. **Shukla, S.K.** (2008). Inspection of Earth Materials in Canal under Construction along the Alignment of Meja-Jirgo Link Channel in Mirzapur District (U.P.), Department of Civil Engineering, Indian Institute of Technology (BHU), Varanasi, India.
6. **Shukla, S.K.** (2007). Improvement of the Site for the Railway Workshop by Preloading, RITES Limited, Lucknow, Department of Civil Engineering, Indian Institute of Technology (BHU), Varanasi, India.
7. **Shukla, S.K.** (2007). Subsurface Investigation and Recommendations on the Allowable Load-Bearing Pressure for Design of Foundations for Aqueduct on Sikrar Drain at Chainage (in km) 10.185 along the Alignment of Meja-Jirgo Link Canal in Mirzapur District (U.P.), Department of Civil Engineering, Indian Institute of Technology (BHU), Varanasi, India.
8. **Shukla, S.K.** (2007). Subsurface Investigation and Recommendations on the Allowable Load-Bearing Pressure for Design of Foundations for Receiving Pit, Bunker and Silo – Major Units of Coal Handling Plant (CHP) at Khadia Project, Northern Coalfields Limited, Khadia, Dist. – Sonebhadra (U.P.), Department of Civil Engineering, Indian Institute of Technology (BHU), Varanasi, India.
9. **Shukla, S.K.** (2007). Subsurface Investigation and Recommendations on the Allowable Load-Bearing Pressure for Design of Foundations for Receiving Pit, Bunker and Silo – Major Units of Coal Handling Plant (CHP) at Block-B Project, Northern Coalfields Limited, Gorbi, Dist. – Sidhi (M.P.), Department of Civil Engineering, Indian Institute of Technology (BHU), Varanasi, India.
10. **Shukla, S.K.** (2007). A Report on the Pile Toe Termination at km 52.106 and km 52.427 of the Bansagar Feeder Canal in Dist. – Sidhi (M.P.), Bansagar Canal Construction Division – 6, Irrigation Department, Government of Uttar Pradesh, Mirzapur (U.P.), Department of Civil Engineering, Indian Institute of Technology (BHU), Varanasi, India.
11. **Shukla, S.K.** (2007). Geotechnical Investigation and Recommendations on the Allowable Load-Bearing Pressure for Design of Foundations of Hydraulic Structures (Aqueduct, Syphon Aqueduct and Superpassage) at km 48.080, km 51.000, km 52.400, km 54.500, km 57.000, km 57.300 and km 60.200 along the Alignment of Meja-Jirgo Link Canal, Bansagar Canal Construction Division – 11, Irrigation Department, Government of Uttar Pradesh, Mirzapur (U.P.), Department of Civil Engineering, Indian Institute of Technology (BHU), Varanasi, India.
12. **Shukla, S.K.** (2007). Geotechnical Investigation and Recommendations on the Allowable Load-Bearing Pressure for Design of Foundations of Hydraulic Structure (Head Regulator) at km 0.080 of the Meja-Jirgo Link Canal, Bansagar Canal Construction Division – 5, Irrigation Department, Government of Uttar Pradesh, Mirzapur (U.P.), Department of Civil Engineering, Indian Institute of Technology (BHU), Varanasi, India.
13. **Shukla, S.K.** (2007). Proof Checking of Soil Investigation Report Prepared by M/s Technical Associates, Varanasi for CSIF Barrack site at Babatpur Airport, Varanasi, Department of Civil Engineering, Indian Institute of Technology (BHU), Varanasi, India.
14. **Shukla, S.K.** (2007). Subsurface Investigation and Recommendations on the Allowable Load-Bearing Pressure for Design of Foundations for Receiving Pit, Bunker and Silo – Major Units of Coal Handling Plant (CHP) at Amlohri Project, Northern Coalfields Limited, Amlohri, Dist. – Sidhi (M.P.), Department of Civil Engineering, Indian Institute of Technology (BHU), Varanasi, India.
15. **Shukla, S.K.** (2007). Subsurface Investigation and Recommendations on the Allowable Load-Bearing Pressure for Design of Foundations for the Intake Well in Yamuna River at Karelabagh, Allahabad, U.P. Jal Nigam, Government of Uttar Pradesh, Allahabad (U.P.), Department of Civil Engineering, Indian Institute of Technology (BHU), Varanasi, India.
16. **Shukla, S.K.** (2007). Subsurface Investigation and Recommendations on the Allowable Load-Bearing Pressure for Design of Foundations for the Overhead Water Tank at

- Niamtabad, Chandauli, U.P. Jal Nigam, Government of Uttar Pradesh, Mughalsarai (U.P.), Department of Civil Engineering, Indian Institute of Technology (BHU), Varanasi, India.
17. **Shukla, S.K.** (2006). E-Content Development on Applications of Geosynthetics in Civil Engineering, Consortium for Educational Communication, Inter University Centre of University Grants Commission on Electronic Media, New Delhi, Department of Civil Engineering, Indian Institute of Technology (BHU), Varanasi, India.
 18. **Shukla, S.K.** (2006). Subsurface Investigation and Recommendations on the Allowable Load-Bearing Pressure for Design of Foundations for the Cold Storage at Mugrabadshahpur, Jaunpur (U.P.), Department of Civil Engineering, Indian Institute of Technology (BHU), Varanasi, India.
 19. **Shukla, S.K.** (2006). Subsurface Investigation and Recommendations on the Allowable Load-Bearing Pressure for Design of Well Foundations for the approach bridge under the modernization of Augausi Pump Canal, Maudha Dam Construction Division – 1, Irrigation Department, Government of Uttar Pradesh, Mahoba (U.P.), Department of Civil Engineering, Indian Institute of Technology (BHU), Varanasi, India.
 20. Kumar, V., **Shukla, S.K.** and Maiti, P.R. (2006). A Report of the Inspection of Partly Constructed Pucca Ghat on the Bank of Ganga River at Ramnagar, Varanasi, India, Department of Civil Engineering, Indian Institute of Technology (BHU), Varanasi, India.
 21. **Shukla, S.K.** (2006). Technical Opinion in connection with the Filter Bed Construction Procedure and Overall On-Site Sewage Treatment Process being Adopted at the Ghaghar Nala, Allahabad (U.P.), Department of Civil Engineering, Indian Institute of Technology (BHU), Varanasi, India.
 22. **Shukla, S.K.** (2006). Field and Laboratory Investigation along with Estimation of Design Parameters for Machine Foundations, Bharat Heavy Electricals Limited (BHEL), Insulator Plant, Industrial Area, Jagadishpur, Dist. – Sultanpur (U.P.), Department of Civil Engineering, Indian Institute of Technology (BHU), Varanasi, India.
 23. Kumar, V. and **Shukla, S.K.** (2006). A Field Loading Test for Determining the Settlement of Piers and Deflection of Floor Slabs of Viaduct Trough of Jarauli Pump Canal, Bansagar Canal Construction Circle Construction, Irrigation Department, Government of Uttar Pradesh, Allahabad (U.P.), Department of Civil Engineering, Indian Institute of Technology (BHU), Varanasi, India.
 24. **Shukla, S.K.** (2006). Geotechnical Investigation and Recommendations on the Allowable Load-Bearing Pressure for Design of Foundations of Hydraulic Structure (Aqueduct) at km 34.655 and km 38.650 of the Bansagar Feeder Channel, Bansagar Canal Construction Circle – 1 Irrigation Department, Government of Uttar Pradesh, Mirzapur (U.P.), Department of Civil Engineering, Indian Institute of Technology (BHU), Varanasi, India.
 25. **Shukla, S.K.** (2006). Estimation of Pile Load – Carrying Capacity for the Design of Piles for the Guest House of Honourable Chief Justice of High Court and Supreme Court at the Bank River Ganga, Varanasi, Department of Civil Engineering, Indian Institute of Technology (BHU), Varanasi, India.
 26. **Shukla, S.K.** (2006). A Report on Plate Load Test at the Foundation Site of Pier No. P-7 of the Aqueduct at km 46.615 of the Bansagar Feeder Channel, Bansagar Canal Construction Division – 7 Irrigation Department, Government of Uttar Pradesh, Mirzapur (U.P.), Department of Civil Engineering, Indian Institute of Technology (BHU), Varanasi, India.
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31. **Shukla, S.K.** and Baishya, S. (1998). Documentation and Identification of Geotechnical Parameters pertaining to Active Landslides on National Highway 52A between Banderdewa and Itanagar, India, Faculty of Natural Disaster Management, North Eastern Regional Institute of Science and Technology, Nirjuli, Itanagar supported by Ministry of Agriculture, Government of India.

Postgraduate and Postdoctoral Research Supervision

In Progress:

1. Borana, L. (2010). “Analysis of nailed soils”, PhD Thesis, Department of Civil and Structural Engineering, Hong Kong Polytechnic University, Hong Kong (Thesis likely to be submitted by November 2012); Co-supervisor.
2. Hossain, M.M. (2011). “Analysis of geosynthetic-reinforced foundations”, PhD Thesis, Discipline of Civil Engineering, School of Engineering, Edith Cowan University, Perth, Western Australia, Australia (Thesis likely to be submitted by July 2013); Principal supervisor.
3. Kuranchie, F.A. (2012). “Mining Wastes in Western Australia and Their Utilizations”, PhD Thesis, Discipline of Civil Engineering, School of Engineering, Edith Cowan University, Perth, Western Australia, Australia (Thesis likely to be submitted by February 2014); Principal supervisor.
4. Thomas, N. (2012). “Geometric design of roads”, ME Thesis, Discipline of Civil Engineering, School of Engineering, Edith Cowan University, Perth, Western Australia, Australia (Thesis likely to be submitted by November 2013); Principal supervisor.

Completed:

5. Sawant, V.S. (2011). “Analysis of laterally loaded piles in sloping ground”, Postdoctoral Research with the Australian Government Endeavour Postdoctoral Research Award, Discipline of Civil Engineering, School of Engineering, Edith Cowan University, Perth, Western Australia, Australia; Principal supervisor.
6. Ting, C. (2011). “Arching in granular materials with particular reference to inclined mine stopes”, PhD Thesis, Discipline of Civil and Environmental Engineering, School of Engineering, James Cook University, Townsville, Queensland, Australia ; Associate supervisor.
7. Monir, M.M. (2011). “Stability analysis of anchored rock slopes against plane failure subjected to surcharge and seismic loads”, ME Thesis, Discipline of Civil Engineering,

- School of Engineering, Edith Cowan University, Perth, Western Australia, Australia; Principal supervisor.
8. Zahid, M. (2010). "Active earth pressure from $c-\phi$ soil subjected to surcharge and seismic loadings", ME Thesis, Discipline of Civil Engineering, School of Engineering, Edith Cowan University, Perth, Western Australia, Australia; Principal supervisor.
 9. Kumar, U. (2009). "Thickness evaluation of granular courses of unreinforced and reinforced unpaved roads", MTech Thesis, Department of Civil Engineering, Institute of Technology, Banaras Hindu University, Varanasi, India; Principal supervisor.
 10. Kumar, R. (2009). "Stability analysis of geosynthetic-reinforced embankment", MTech Thesis, Department of Civil Engineering, Institute of Technology, Banaras Hindu University, Varanasi, India; Principal supervisor.
 11. Panda, D. (2008). "Seismic active earth pressure against retaining wall from $c-\phi$ soil backfill with tension cracks and wall adhesion", MTech Thesis, Department of Civil Engineering, Institute of Technology, Banaras Hindu University, Varanasi, India; Principal supervisor.
 12. Tyagi, B.K. (2008). "Bearing capacity analysis of footings resting on the reinforced sand bed", MTech Thesis, Department of Civil Engineering, Institute of Technology, Banaras Hindu University, Varanasi, India; Principal supervisor.
 13. Gupta, S.K. (2007). "Active earth pressure on retaining wall for $c-\phi$ soil backfill under seismic loading condition", MTech Thesis, Department of Civil Engineering, Institute of Technology, Banaras Hindu University, Varanasi, India; Principal supervisor.
 14. Kumar, R. (2007). "Overall slope stability analysis of prestressed geosynthetic reinforced embankment on soft ground", MTech Thesis, Department of Civil Engineering, Institute of Technology, Banaras Hindu University, Varanasi, India; Principal supervisor.
 15. Mahto, S. (2007). "Lateral and axial strain behaviour of geosynthetics", MTech Thesis, Department of Civil Engineering, Institute of Technology, Banaras Hindu University, Varanasi, India; Principal supervisor.
 16. Gupta, A. (2007). "Strain energy analysis of a circular plate resting on the Pasternak foundation model", MTech Thesis, Department of Civil Engineering, Institute of Technology, Banaras Hindu University, Varanasi, India; Principal supervisor.
 17. Jameel, K.A. (2006). "Evaluation of separation function of a geotextile layer at the subgrade level in roads", MTech Thesis, Department of Civil Engineering, Institute of Technology, Banaras Hindu University, Varanasi, India; Principal supervisor.
 18. Mehta, R. (2005). "A study on geosynthetic strain and its evaluation", Department of Civil Engineering, MTech Thesis, Institute of Technology, Banaras Hindu University, Varanasi, India; Principal supervisor.
 19. Mishra, S. (2005). "Active earth pressure mobilization behind retaining wall", MTech Thesis, Department of Civil Engineering, Institute of Technology, Banaras Hindu University, Varanasi, India; Principal supervisor.
 20. Sharma, U. (2004). "Evaluation of performance of some geotextiles as a drainage medium", MTech Thesis, Department of Civil Engineering, Institute of Technology, Banaras Hindu University, Varanasi, India; Principal supervisor.
 21. Kuklyekar, M.P. (2004). "Strength behaviour of geosynthetic-reinforced fly ash", MTech Thesis, Department of Civil Engineering, Institute of Technology, Banaras Hindu University, Varanasi, India; Principal supervisor.
 22. Bora, J. (1998). "Impact of diesel contamination on the hydraulic conductivity of Itanagar soil", MTech Thesis, Department of Civil Engineering, North Regional Institute of Science and Technology, Itanagar, India; Principal supervisor.
 23. Taikam, R. (1998). "Effects of contamination by some wastes on the engineering behaviour of Itanagar soil", MTech Thesis, Department of Civil Engineering, North Regional Institute of Science and Technology, Itanagar, India; Principal supervisor.

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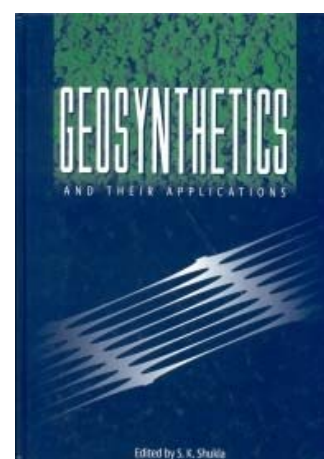
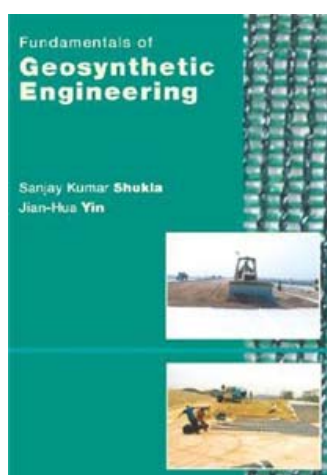
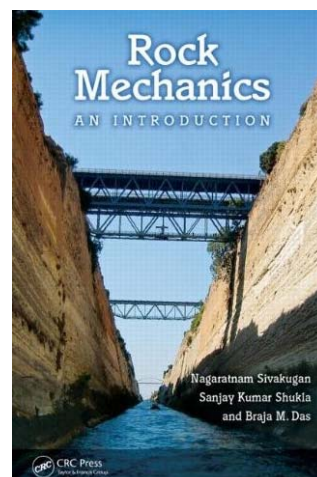
1. Das, B.M. and **Shukla, S.K.** (2012). Earth anchors. 2nd edition, J. Ross Publishing, Inc, Florida, USA.

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2. Sivakugan, N., **Shukla, S.K.** and Das, B.M. (2012). *Rock Mechanics – An Introduction*. CRC Press, Taylor and Francis, Boca Raton, Florida, USA, 288 p. ISBN 978-0-415-80923-8 (Hardback), ISBN 978-0-203-12759-9 (eBook).

Published:

3. **Shukla, S.K.** (2012). *Handbook of Geosynthetic Engineering*. 2nd edition, ICE Publishing, London, USA, 409 p., ISBN 978-0-7277-4175-2 (Hardbound) & 978-0-7277-4192-9 (EBook), DOI: 10.1680/hge.41752.
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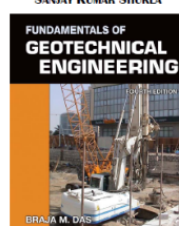
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Research Papers in Refereed, Scholarly Journals

Papers under Review:

1. **Shukla, S.K.** (2012). Seismic active and passive earth pressures from the sloping $c-\phi$ soil backfills. *Soil Dynamics and Earthquake Engineering*, UK.
2. Gill, K.S., Choudhary, A.K., Jha, J.N. and **Shukla, S.K.** (2012). Experimental and numerical studies of loaded strip footing resting on reinforced fly ash slope. *Geosynthetics International*, UK.
3. Borana, L., Yin, J.H., Singh, D.N. and **Shukla, S.K.** (2012). A modified suction controlled direct shear device for testing unsaturated soil and steel plate interface at different shear planes. *Geotechnical Testing Journal*, ASTM, USA.
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11. **Shukla, S.K.** (2012). Analytical expression for the seismic passive earth pressure from the $c-\phi$ soil backfills on rigid retaining walls with wall friction and adhesion. *International Journal of Geotechnical Engineering*, Vol. 6, No. 3, pp. 365-370, USA, DOI: 10.3328/IJGE.2012.06.02.365-369.
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18. **Shukla, S.K.** and Sivakugan, N. (2012). Load coefficient for ditch conduits covered with geosynthetic-reinforced granular fill. *International Journal of Geomechanics*, ASCE, USA, DOI: 10.1061/(ASCE)GM.1943-5622.0000181.
19. **Shukla, S.K.** (2012). Discussion of “Practical Subgrade Model for Improved Soil-Structure Interaction Analysis: Model Development” by John S. Horvath and Regis J. Colasanti, Vol. 11, No. 1, pp. 59-64’, *International Journal of Geomechanics*, ASCE, USA, DOI: 10.1061/(ASCE)GM.1943-5622.0000168.
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36. Singh, S., Sivakugan, N. and **Shukla, S.K.** (2010). Can soil arching be insensitive to ϕ ? *International Journal of Geomechanics*, ASCE, USA, Vol. 10, No. 3, pp. 124-128, DOI: 10.1061/(ASCE)GM.1943-5622.0000047.
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THANK YOU