

CURRICULUM VITAE

1. Full Name – Dr. AKHILESHWAR KUMAR SINGH

2. Date and Place of Birth - 04/10/1964, Dinapur Cantt, Patna [BIHAR]

3. Professional Skills /Teaching

Sl. No.	Employer	Post held	Period of Employment	
			From	To
1.	N. I. T. Jamshedpur	Associate Professor	1/8/2008	Continue
2.	N. I. T. Jamshedpur	Asstt. Professor	01/8/2005	31/7/2008
3.	N. I. T. Jamshedpur	Lecturer	26.3.96	31/7/2005

4. Associate Dean (Planning and Development) – NIT Jamshedpur

5. Research Experience:

(a) Title of M. Tech./Ph. D. Thesis

Degree	Title of Thesis	Supervisor
M. Tech./ M. E.	Computer Aided Analysis and Design of Annular Raft Foundation	Prof. Y. K. Sharma
Ph. D.	Stability Analysis of Levees	Prof. G. C. Mishra Prof. N. K. Samadhiya Prof. C. S. P. Ojha

(b) Dissertation M. Tech./Ph. D. Supervised:

Degree	Name of Student	Title of Dissertation	Year of Completion	Co-Supervisor, if any
Ph. D.	Mantu Kumar	Stability Analysis of Hilly Roads	Continued	
Ph. D.	Dipendra Chandra Swarnkar	Ring Foundation	2018	
M. Sc. (Engg.) [PTPG]	A. N. Singh	Experimental Study of Piled – Raft Foundation	2008	
M. Tech.	K. Rao	Experimental Study of Ground Anchors	2015	
	Nitesh Kumar	Study of Composite Earth Fill Material	2016	

M. Tech.	P. Verma	Analysis and Design of the Lining of Canal Tunnel	2017	
	Harshit Raj	Computer Aided Analysis and Design of Retaining Walls	2017	
	Ajay Kumawat	Optimization of Pile Foundation	2017	
M. Tech.	Gourab Mandal	Finite Element Analysis of Lining of Canal Tunnel	2018	
	Amit Kumar	Characterization of Clay for water Retaining Structures	2018	
	Krishna Kumar	Design of Waste Pond	2018	

(c) B. Tech. Project Guided [Major and Minor]

Sl. No.	Title of Project	Session	Remarks
1.	Stabilization of Expansive Soil by Lime and Fly-ash	1996-97	
2.	Computer Aided Design & Cost Optimisation of Under Reamed Pile Foundation	1997-98	
3.	Design of Water Treatment Plant for RIT Campus	1998-99	
4.	Study of Liquefaction of Sand	1999-2000	
5.	Riverbank Filtration	2000-01	
6.	Trenchless Technology	2004	
7.	Ground Anchors	2005	
8.	Renovation and Rehabilitation of Monuments and Old Structures	2006	
9.	(i) Ground Excavation in Soil (ii) Underground Construction in Rock	2007	
10.	Study of Composite Earth-fill Material	2008	
11.	Study of Spun Pile Foundation	2009	
12.	Study of Geo-environmental Problems	2010	
13.	Computer Aided Analysis and Design of Sheet Pile Retaining Wall	2011	
14.	Design of Waste Pond	2012	
15.	Analysis and Design of Abutment	2013	
16.	River Bank Filtration	2014	

17.	Study of Geoinvironmental Engineering Problem	2015	
18.	Optimisation of Under reamed Pile Foundation	2016	
16.	Design of Levee cum Road to Safeguard Adityapur	2017	
17.	Design of Raft Foundation [Two students completed the analysis of Raft Foundation of different sites]	2018	

(d) Field Exposer /Consultancy Projects/Testing Works

Sl No.	Details	Period	Organisation	Amount [in Lakhs]	Co-Investigator[s], if any	Role
1.	Quality control of materials (lab & field Test), site visit, checking & vetting of drawings and final report of construction of Solid Waste Landfill at Sini More [AIIDA]	2016-2017	M/s Ramky Enviro Engineers Ltd., Hyderabad	8, 50,000/-	Dr. R. P. Singh	Expert
2.	TPQA of Forester Training School, Ranchi & Hazaribag [JICA Sponsored]	2014-2016	Deptt. of Forest, Govt. of Jharkhand	10,00,000/- [Paid Rs. 7, 00, 000/-]	Dr. B. K. Prasad	Team Member
3.	IVA work of water supply scheme of Chota Govindpur and Bagbera, JSR [World Bank Sponsored]	2016 & cont.	Deptt. of Water Supply & Sanitaion, Gov. of Jharkhand	2.0 Crore	Dr. A. K. Khan Dr. R. P. Singh Dr. B. K. Prasad Dr. P. Prasad Dr. V. Kumar	Member
4.	Soil bearing capacity at Ranchi for construction of Rabindra Bhawan & Huj House	2017	M/s JUDCO Ltd., Govt. of Jharkhand	6, 17, 000/-	Dr. R. P. Singh	Expert
	Soil bearing	2017	M/s JUSCO	9, 90,000/-		Expert

5.	capacity at Baradwari, Sakchi, JSR for construction of 400 flats (25 Blocks) for urban poor people [Nav Jivan Ashram]	& Cont.	for JUDCO, Ranchi	[Paid Rs. 3, 30,000/-]	Dr. R. P. Singh	
	Rock Core Testing for Tunnel Construction	2016	M/s WPCL-Principal Consortium, Pune	79, 000/-	Dr. A. K. Khan	Expert
6.	Soil bearing capacity at Teacher Training More, Gamharia, JSR for Commercial Complex (Mahabir Tower) with basement	2017	M/s Shree Housing Developers , Bistupur, JSR	1, 53, 000/-	Dr. A. K. Khan	Expert
7.	Soil bearing capacity for proposed building of 10 storyed Eye Hospital at Tamolia, Mango, JSR	2009	M/s Brahmanand Seva Sadan, Air base Colony, Kadma, JSR	87, 500/-	Sri R. P. Singh	Expert
8.	Soil bearing capacity for foundation of temple at Bara Jamda, West Singhbhum	2009	M/s Satsang Vihar, Bara Jamda [West Singhbhum]	58,500/-	Dr. A. K. Choudhary	Expert
9.	Soil bearing capacity for foundation of Commercial Complex at Marin Drive, Sonari, JSR	2010	M/s Bindal Buildicon Pvt. Ltd. , Bistupur, JSR	89, 8000/-	Dr. A. K. Khan	Expert
10.				2, 90, 000/-	Dr. A. K. Khan	Expert

11.	Soil bearing capacity for construction of Elephant pass at 26 KM of left main canal, Subarnrekha Project, Chandil	2011	Executive Engineer, MDD No. 12, Mango, JSR			
12.	Checking and vetting of chimney, CMR, foundation and industrial shed of Tata Steel, JSR	2009	TEC, JSR	2, 50, 000/-	Structure and Geotech Combined	Expert and Head
13.	Checking and vetting of ROB, Bridge, etc.	2008	ACME Consultant Ranchi	3, 00, 000/-	Structure and Geotech Combined	Expert and Head

6. Publications:

(a) Refereed Journal Papers [International Journal]

- i) Mishra, G. C. and **Singh, A. K.** [2005] : “ *Seepage Through a Levee*” , Journal of Geomechanics, ASCE, March 2005, USA, 74-79.
- ii) **Singh, A. K.** and et al. [2006] : “*Design of Rigid Cut-off Wall* ”, Journal of Geomechanics, ASCE, August 2006, USA, 215 - 226.
- iii) **Singh, A. K.** and et al. [2009] : “ *A New Approach for the Determination of Forces on Sheet Pile Cut-Off wall* ”, International Journal of Dam Engineering, UK, Vol. XX (3), 255-273.
- iv) **Singh, A. K.** and Mishra, G. C. [2013] : “*Foundation Stability of a Levee*”, International Journal of Geotechnical and Geological Engineering, Springer, published on line in August 2013, pp 1 - 13.
- v) **Singh, A. K.** [2015] : “*Stability Analysis of Downstream Slope of Levees*”, Geomechanics and Geoengineering, An International Journal, Taylor & Francis, May 2015 (DOI no. 10.1080/17486025.2015.1042926), pp 1-10.

(b) Publication in Proceedings of Conferences [International]

- i) **Singh, A. K.**, Samadhiya, N. K., Mishra, G. C. and Ojha, C. S. P. [2002] : *“Seepage Analysis of Levees without Filter ”*, Proceedings of WE - 2003, RRL, Bhopal (M. P.), India, 244 - 251.
- ii) **Singh, A. K.**, Samadhiya, N. K., Mishra, G. C. and Ojha, C. S. P. [2003] : *“Influence of Clay and Tree Root on Boiling of Sand ”*, Proceedings of IGC - 2003, I. I. T, Roorkee, India, 385-388.
- iii) **Singh, A. K.**, Samadhiya, N. K. and Ojha, C. S. P. [2004] : *“Stability Analysis of Levee Slopes ”*, Proceedings of ICON – HERP : 2004, I. I. T, Roorkee, India, 288 - 301.
- iv) **Singh, A. K.**, Samadhiya, N. K. and Ojha, C. S. P. [2004] : *“Stability of Foundation of Flood Control Structures (Experimental Investigation) ”*, Proceedings of IGC - 2004, N. I. T, Warangal [A. P.], India, 21 - 24.
- v) **Singh, A. K.** [2005] : *“Influence of River Bank Filtration on Water Quality ”*, Proceedings of ICEM-2005, JNTU, Hyderabad, India, Vol. 3 (Pollution & Control Technology), 358-365.
- vi) **Singh, A. K.** and Samadhiya, N. K. [2005] : *“Seepage Characteristics under a Flood Wall ”*, Proceedings of IGC - 2005, Nirma University, Ahmedabad, India, Vol. II (Dam Engineering), 99-102.
- vii) **Singh, A. K.** [2008] : *“Performance Study of Anti-Seepage Elements under Flood Control Structures”*, Proceedings of ATC-7 (Water & Environment-Flood Control), Busan, SEP. 2008, South Korea.
- viii) **Singh, A. K.** [2008] : *“Analysis of Flow in a Horizontal Toe Filter”*, Proceedings of IACMAG - 2008, IITB, Panji, GOA, Oct. 2008, India.
- ix) **Singh, A. K.** [2011] : *“ Numerical Analysis of Levee with and without Toe Drain”*, Proceedings of IACMAG - 2011, May 09 - 13, 2011, Melbourne, Australia.
- x) **Singh, A. K.** [2013] : *“Experimental Study of Piled Raft Foundation”* Proceedings of IGC -2013, Dec. 22- 24, 2013, IIT Roorkee, India.
- xi) **Singh, A. K.** [2014] : *“Design of Waste Pond of an Educational Institute”* Proceedings of ICEST – 2014, June 9 – 13, 2014, American Academy of Science, Houston, Texas, USA.

- xii) **Singh, A. K.** and Kumar, N. [2014] : “*Study of Spun Pile Foundation*” Proceedings of IGC -2014, Dec. 18 - 20, 2014, JNTU Kakinada, AP, India.
- xiii) **Singh, A. K.** and Koteswararao, J. [2014] : “Computer Aided Analysis and Design of Sheet Pile” Proceedings of IGC -2014, Dec. 18 - 20, 2014, JNTU Kakinada, AP, India.
- xiv) **Singh, A. K.** and Koteswararao, J. [2015] : “Experimental Study of Ground Anchors”, Proceedings of IGC -2015, Dec. 17 - 19, 2015, COEP Pune, India.
- xv) Verma, P. and **Singh, A. K.** [2017] : “Analysis and Design of Lining of Canal Tunnel” Proceedings of IGC -2017, Dec. 14 - 16, 2017, IIT Guwhati, India.

(d) Publication in Proceedings of Conference [National]

- i) **Singh, A. K.** and Khan, A. K. [1998] : “*Role of Lime and Fly-ash in Stabilization of Expansive Soil* ”, Proceedings of GEN-98, MNREC, Allahabad, India, II -109 to II –116.
- ii) **Singh, A. K.** and Regami, B. [1999] : “ *Computer Aided Design of Under - Reamed Pile Foundation*”, Proceedings of NSGPC - 99, SGSITS, Indore, India, Sl. No. 22.
- iii) **Singh, A. K.** [2000]: “ Ground Improvement for Roads on Expansive Soils”, Proceeding of National Conference on Roads on Expansive Soils, Engineering College, Tirupati, India.
- iv) **Singh, A. K.** [2003] : “*Geotechnical Aspects of Water Retaining Structures - Infrastructure Development of Jharkhand* ”, Proceedings of GSIDJ - 2003, NIT, Jamshedpur, India, 509-512.
- v) **Singh, A. K.** [2005] : “*Application of Numerical Techniques in Stability Analysis of Levee Foundation* ”, Proceedings of AGAT - 2005, N. I. T, Rourkella, India.
- vi) **Singh, A. K.** [2006] : “*Behaviour of Ground Anchors*”, Proceedings of CEMCT - 2006, GNE College, Ludhiana, India, 112-117.
- vii) **Singh, A. K.** [2011] : “ *Control of sand Boiling and Piping*”, Proceedings of RAGIT - 2011, Feb. 2011, CBRI Roorkee, India.

7. Teaching Experience:

(a) Teaching at University Level: National Institute of Technology, Jamshedpur

- (i) Total no. of years – 22.5 years [UG Level & PG Level]
- (ii) List of Courses taught at B. E./B. Tech / M. E./ M. Tech. Level

U. G. Level [Paper]

1. Soil Mechanics
2. C. P. M.
3. Ground Improvement
4. Building Materials
5. Foundation Engineering
6. Sustainable Development
7. Computational Methods in Civil Engineering
8. Disaster Mitigation and Management
9. Estimating and Costing
10. Construction Technology
10. Soil Mechanics Lab, Environmental Engg. Lab., Computer Programming, Transportation Lab. & CSA Sessional.

P. G. Level [Paper]

1. Flow through Porous Media [Groundwater Hydraulics]
2. Embankment Dam Engineering [Dam Engineering]
3. Ground Improvement
4. Soil dynamics and Machine Foundation
5. Numerical Analysis and FEM

8. Short Term Courses Attended

Sl. No.	Name of the Course	Duration	Sponsored by	Host Institute
1.	Fuzzy System Modeling in Civil Engineering	3/6/98 – 6/6/98	RIT JSR & IIT Chennai	IIT, Madras.
2.	Developments in Reinforcement of Ground and Slopes	22/3/99 to 26/3/99	AICTE	IIT, Kanpur.
3.	Recent Trends in Structural Dynamics	15 /11/99 to 28/11/99	AICTE	KIT, Coimbatore.
4.	Random Vibration and Application to Earthquake Engineering	Two Weeks, Dec. 99	AICTE	IIT, Kharagpur.
5.	Environmental Management for the New Millennium	22/5/2000 to 2/6/2000	AICTE	RIT, Sakharale, Sangli.
6.	Team Building and Performance Management	5/6/2000 to 16/6/2000	AICTE	REC, Warangal.
7.	National Workshop on Application of Rock Engineering in Nation's Development	27-28 April, 2001.	RIT JSR & IGS Roorkee	University of Roorkee, Roorkee.
8.	Human Values in Technical Education	11/3/2002	QIP, IITR	I.I.T., Roorkee.
9.	Effective Teacher	13/1/02 to 19/1/02	AICTE	I.I.T., Roorkee.
10.	Human Values and Professional Ethics	18/3/02 to 22/3/02	AICTE	I.I.T., Roorkee.

11.	Earthquake Resistant Design and Retrofitting of Reinforced Concrete Building	30/6/02 to 12/7/02	AICTE	I.I.T., Roorkee.
12.	Rock Mechanics in Civil Engineering Projects	22/12/03 to 26/12/03	AICTE	I.I.T., Roorkee
13.	FEM and its Applications	June 2005 [Two Weeks]	TEQIP	N. I. T. JSR
14.	Advances in Rock Engineering	26/12/06 to 30/12/06	AICTE	IIT Roorkee
15.	Applied Numerical Methods	7/7/08 to 11/7/08	TEQIP	NIT JSR
16.	Green Infrastructures	26/12/2010 to 2/1/2011	AICTE	I.I.T. Kharagpur
17.	Numerical Methods and its Application in Science & Engineering	August 2013	TPQIP NIT JSR	NIT Jamshedpur

9. GIAN COURSE – on “Design of Waste Pond and Mine Tailing Dam“ .

10. Participation in Conference/Seminar/Symposium/Workshop

Sl. No.	Conf./Seminar/Workshop	Place & Sponsored by	Dates
1.	GEN – 98	MNREC, Allahabad/ RIT JSR	April 9 & 10, 1998
2.	NW-AREND	UOR, Roorkee/ RIT JSR	April 27 & 28, 2001
3.	SEC – 2002	IIT, Roorkee/CED, IITR	Oct. 29 to 31, 2001
4.	IGC – 2002	MNNIT, Allahabad/ QIP Centre Roorkee	Dec. 20 to 22, 2002
5.	IGC – 2003	IIT, Roorkee/ QIP Centre, Roorkee	Dec. 18 to 20, 2003
6.	Riverbank Filtration	IIT, Roorkee/ CED, IITR	Feb. 1 and 2, 2004
7.	AGAT – 2005	N. I. T. Rourkela	January 2005
8.	IGC – 2005	Nirma University, Ahmedabad	17 th to 19 th Dec. 2005
9.	CEMCT – 2006	GNE College, Ludhiana	24 th & 25 th Nov. 2006
10.	IACMAG – 08	IIT Bombay [Marriat Resort, Panjim, GOA]	1 st Oct. 08 to 6 th Oct. 08
11.	Deep Foundation Technologies for Infrastructure Development of India (DFI)	IIT Mumbai	15 – 16 Nov. 2013
12.	IGC – 2013	IIT Roorkee	22-24 DEC. 2013
13.	ICEST-2014	American Academy of Science Houston, Texas, USA	9 th June 14 to 13 th June 14.
14.	IGC – 2015	COEP Pune	17 th to 19 th Dec. 2015
15.	IGC – 2017	IIT Guwhati	14 th to 16 th Dec. 2017

11. Special Lecture/ Examiner/Question Setter/Reviewer

- (i) **“Intelligent & Sustainable Buildings”**- Organized by **BIS Jamshedpur - 2008**
- (ii) Talk on **All India Radio**, Jamshedpur – **Disaster Management, Intelligent & Sustainable Buildings**.
- (iii) **NPCBEERM - Jan. 2006 & March 2006** [Training of State Engineers, Jharkhand] for Earthquake Resistant Design in NIT Jamshedpur
- (iv) **“Geotechnical Investigation for Urban Planning and Development”** STTP organized by Deptt. of Civil Engg., MN NIT Allahabad, 16 Dec. – 20 Dec. 2013 on topic *Geotechnical Investigation of Elephant Pass*.
- (iv) **Viva-voce Examination** – BIT Sindri (Dhanbad) ; NIFFT Ranchi
- (v) **Question Setter & Answer book evaluation** – NIT Patna, MIT Muzafarpur, BCE Bhagalpur, NIFFT Ranchi, **BPSC (Patna), JPSC (Ranchi) in 2015, 2016, 2017, 2018**.
- (vi) **Expert Member** – Syllabus modification committee of M. Tech. in NIFFT Ranchi.
- (vii) **External Expert in DRDO** – Campus Selection
- (viii) **Expert Member (Mining Environmental Clearance Committee)** – Seraikela – Kharsawan & West Singhbhum) – 2016 & 2017
- (ix) **Special Lecture - SSI Lecture** in IIT Bhuneshwar
- (x) Member STA PMGSY, for Jhrkhand – 2006-2009.

12. Other Information’s

- (i) Membership/Fellowship and position of responsibility in Professional Societies:
 - (1) Life Member of IGS, New Delhi [LM-1732]
 - (2) Life Member of ISRMTT, New Delhi [1274]
- (ii) Distinctions:
 - (1) Over all topper in M. E., Rani Durgawati Vishwavidalaya, Jabalpur (M. P.)
- (iii) Scholarship Received:
 - (i) B. Sc. (Civil Engg.) – Merit cum Means
 - (ii) M. E. (Geotech. Engg.) – GATE Scholarship
 - (iii) Ph. D. - AICTE Scholarship
- (iv) Knowledge of Software :
FORTARAN, C⁺⁺, BASIC, MS Office, ANSYS, STAAD, MATLAB, AUTOCAD, etc.
- (v) Member of Technical Committee:
Technical Member of STA JHARKHAND for road development program under PMGSY.

13. Administrative Work/Responsibilities :

- (i) Magistrate in Parliament election 1999 and Assembly election 2005, 2009, Panchayat Election 2010 and Assembly and Parliament – 2014.
- (ii) Observer – AIEEE, NET, JEE
- (iii) Social Service: Chairman SWS, RIT Jamshedpur
- (iv) Management & Institutional Development Elements:

a) Dept./Centre's Level :

- (i) Head of the Department – Acting as a head time to time and Full time Civil Engg., NIT JSR 1/8/08 to 16/1/09
BOS (1st time), Senate, Two M. Tech. Courses, Bulk of Consultancy and Testing work, Upgrading of UG Syllabus, Ph. D. Admission, Accreditation Form, Division of UG Syllabus into 5 Units, Budget for 2 financial year (1st time), etc.
- (ii) P/I department development & maintenance, Chairman department computer lab renovation committee, Chairman DPC & P/I Transportation Lab., Geo-technical Engg. & Soil Mechanics Lab. Purchased different Models
- (iii) Faculty Advisor Cum Tabulator – 2003 Batch, 2007 Batch, 2016 Batch [M. Tech.], 2017 Batch [Geotechnical Engg.]

b) Institute Level: Asst. Warden – Hostel G [June 1996 to July 2001]

Coordinator – **PTPG Courses (CED)**

Coordinator – **Industry and Alumni Relation, NIT JSR**

- (i) **P/I, Civil Construction and Maintenance** – Feb. 09 to Feb. 2010

14. Personal Skills

- * Excellent Interpersonal & Team builder
- * Ability to carry out Assignments with great sense of Responsibility
- * Problem shooting & Route cause Analyser
- * Good communication skill
- * Principled, Honest, Emphatic & Hardworking
- * Good Administrator & Future Planner

15. Research Area (s):

- Seepage Analysis
- Stability of Structure
- River Bank Filtration
- Rock and Tunnel
- Ground Improvement
- Soil Structure Interaction
- Geo-environment

[Analytical, Numerical & Experimental Investigation]

16. Reviewer - International Association for Computer Methods and Advances in Geomechanics (IACMAG) and Member International Technical Committee.

IGC – 2014, Kakinada (AP) – Conference Paper

17. References:

1. Prof. G. C. Mishra [E-mail: gcmdrftw@iitr.ernet.in]
WRDM, I I T Roorkee
Pin code – 247667 [Uttranchal]
Phone No. : 01332-285671 (O) , 285017 (R)
2. Prof. N. K. Samadhiya [E-mail: nksamfce@iitr.ernet.in]
Deptt. of Civil Engg.
I. I. T. Roorkee
Pin code – 247667 [Uttranchal]
Phone No. 01332 - 285467 (O), 285052 (R)
3. Prof. C. S. P. Ojha [E-mail : cspojha@rediffmail.com]
Head, Deptt. of Civil Engg.
I. I. T. Roorkee
Pin code – 247667 [Uttranchal], Phone No. 01332-285494 (O), 285285 (R)
4. Prof. D. N. Singh [dns@civil.iitb.ac.in]
Deptt. of Civil Engg.
I. I. T. Mumbai, Bombay - 76
Mob. No. - 912225764317

Signature of the Candidate

Place: Jamshedpur
Date : 12/09/2018