

BIO – DATA

Prof.(DR.) SHISHIR GUPTA

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1. **Name** : Prof.(Dr.) SHISHIR GUPTA
 2. **Father's Name** : Late S. C. Gupta
 3. **Date of Birth** : 25 January 1959
 4. **Nationality** : Indian
 5. **Address (with telephone no.& e-mail)**



(a) **Official** : Professor
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6. Educational Qualifications:

Sl. No.	Degree	Name of University/ Institute	Class	Year
1	PhD (Applied Mathematics)	Indian School of Mines, Dhanbad, India	-	1987
2	MPhil.(Applied Mathematics)	Indian School of Mines, Dhanbad, India	Ist Class (With Distinction)	1985
3	M.Sc (Mathematics)	Ranchi University, Jharkhand, India	Ist Class (Rank – Ist)	1983

7. **Field of Specialisation** : Theoretical Seismology, Numerical Methods and Special functions

8. Details of Professional Experience:

Sl. No.	Position Held	Organization / Institute	Duration
1.	Professor	ISM , Dhanbad	2010 - Continuing
2.	Associate Professor	ISM , Dhanbad	2006 – 2010
3.	Assistant Professor	ISM , Dhanbad	2000 – 2006
4.	Lecturer	ISM , Dhanbad	1991 – 2000
4	Lecturer	NIT Silchar, Assam	1988 – 1991

9. Membership of Academic and Professional Bodies :

- Life Fellow, Indian mathematical society;
- Life Fellow, Indian Science Congress Association;
- Affiliate Member, American Mathematical Society;

10. Research Project undertaken

- (i) R & D Project # SR/S4/ES-246/2006 From DST, (**Earth Science Division**),
New Delhi, India.

Title : “**Investigation of torsional surface waves in non-homogeneous layered earth**”.

P.I. : Dr. Shishir Gupta

Status : Completed on 31.03.2011

Outcome : Following papers have been published in international journals :

- **Gupta,S.,**Chattopadhyay,A., Kundu, S. Gupta, A.K.,(2009) , Effect of rigid boundary on the propagation of torsional waves in a homogeneous layer over a heterogeneous half-space. **Archive of Applied Mechanics,(Springer-Verlag)**, Vol. 80, No. 2. pp. 143 – 150
- **Gupta,S.,** A.Chattopadhyay and D.K.Majhi,(2010) Effect of irregularity on the propagation of torsional surface waves in an initially stressed anisotropic poro-elastic layer “**Applied Mathematics and Mechanics**” . 31(4), 481–492 (2010),DOI 10.1007/s 10483-010-0408-9, (**Springer-Verlag**).
- **Gupta,S.,**Chattopadhyay,A., Kundu, S. Gupta, A.K.,(2010), Propagation of torsional surface waves in gravitating anisotropic porous half space with rigid boundary. **Int. J. of Appl. Math. and Mech** .vol. 6 (11): 17-25, 2010.

- (ii) R & D Project # SR/S4/MS:436/07from DST, New Delhi.

Title : “**Wave propagation in anisotropic media**”

P.I. : Prof. A. Chattopadhyay

Co. P.I. : Dr. Shishir Gupta

Status : Under Progress

Outcome : Following papers have been published in international journals

- Chattopadhyay,A.,**Gupta,S.,**V.K.Sharma,V.K.,Kumari,Pato(2008). Propagation of SH waves in an irregular monoclinic crustal layer, **Archive of Applied Mechanics**, Springer-Verlag Vol.78, 989-999

- Chattopadhyay, A., **Gupta, S.**, Samal, S.K., Sharma, V.K. (2009) Torsional waves in self-reinforced media, **International Journal of Geomechanics, (ASCE)**, Volume 9, Issue 1, pp. 9-13 .
- Chattopadhyay, A., **Gupta, S.**, V.K. Sharma, V.K., Kumari, Pato (2009), Reflection and refraction of plane Quasi-P waves at a corrugated interface between distinct triclinic elastic half spaces. **International Journal of Solids and Structures, (ELSEVIER)**, 46 (2009) 3241-3256.
- Chattopadhyay, A., **Gupta, S.**, V.K. Sharma, V.K. and Kumari, Pato (2009), Propagation of Shear waves in viscoelastic medium at irregular boundaries, **Acta Geophysica.**, Vol. 58, no. 2, pp. 195-214 (**Springer-Verlag**).
- Chattopadhyay, A., **Gupta, S.**, Chattopadhyay, Ananga & Singh, A.K. (2010). The Dispersion of Shear wave in Multilayered Magnetoelastic Self-reinforced Media, **International Journal of Solids and Structures, (ELSEVIER)**, 47, 1317-1324.
- Chattopadhyay, A., **S. Gupta**, V.K. Sharma and Pato Kumari, (2010), Propagation of torsional waves in an inhomogeneous layer over an inhomogeneous half space, “**MECCANICA**” , DOI10.107/s11012-010-9329-5, (**Springer-Verlag**).

11. Dissertations Supervised

(a) Research Students guided for Ph.D. degree in Applied Mathematics :

Sl.No.	Name of Scholar	Topic of Research	Degree	Year of completion
1.	A. M. Prasad	A study of surface waves in non homogeneous and anelastic media	Ph.D.	June, 2000
2.	P.K.De	Propagation of waves in an initially stressed medium	Ph.D.	July, 2005
3.	S. Kundu	Mathematical modeling for propagation of seismic waves in layered media.	Ph.D.	December, 2010

(b) Research Students presently guiding for Ph.D. degree in Applied Mathematics :

Sl.No.	Name of Scholar	Topic of Research	Degree	Present status of the research work
1.	D.K.Majhi	Propagation of seismic waves in heterogeneous and anisotropic layered medium	Ph.D.	Presently continuing
2.	S. Viswakarma	Study of some problems of seismic waves in homogeneous elastic medium	Ph.D.	Presently continuing

(c) **M.Phil.** : Seven Completed.

(d) **M.Sc.** : Nine Completed.

12. Books written

(a) I am Co Author of the following books :

➤ **Complex Variable (SIA)**

Schaum's outlines , second edition,

Name of authors : Murray R Spiegel, Seymour Lipschutz , John J Schiller,
Dennis Spellman and **Shishir Gupta**

Publisher : Tata McGraw Hill Education Pvt. Ltd.

➤ **Essential Numerical Methods for Scientists and Engineers with
C-Programing**

Status towards publication: In Press

Publisher: Tata McGraw Hill Education Pvt. Ltd.

13. **Reviewer** : I am reviewer of following Journal :

➤ **International Journal of Engineering, Science and Technology**

➤ **Canadian Journal of Physics**

➤ **International Journal of Vibration & Control**

14. My research articles related to seismology have been published in the following standard international journals:

➤ ***International Journal for Numerical and Analytical Methods in
Geomechanics, Arizona, U. S. A.***

➤ ***Journal of Acoustical Society of America, U. S. A.***

➤ ***Journal of Mathematics and Mechanics of Solids, U. S. A.***

➤ ***Journal of Engineering Mechanics (ASCE), U. S. A.***

➤ ***International Journal of Geomechanics , (ASCE).***

➤ ***Archive of Applied Mechanics, Springer-Verlag .***

- *International Journal of Solids and Structures, (ELSEVIER).*
- *Acta Geophysica. (Springer-Verlag).*
- *Applied Mathematics and Mechanics, (Springer-Verlag)*
- *MECCANICA ,(Springer-Verlag).*
- *International Journal of Applied Mathematics and Mechanics.*
- *Applied Mathematical Sciences.*
- *International Journal of Engineering, Science and Technology*
- *Journal of Solid Mechanics*
- *Tamkang Journal of Science and Engineering*

15. Administrative / Committee work attended :

1. Institute level :

- Worked as Hostel Warden up to Feb'2006(4-years).
- Member Entrance Exam -2004-08 Committee.
- Member Academic Council 2007-09.
- Member Selection Board for M.Phil. (Applied Maths).
- Coordinator M. Phil (Applied Mathematics, (2010 – Till date)

2. Departmental level :

- Working as Secretary DAC of Detartment of Applied Mathematics, (2008- Till date)
- Working as Convener/Chairman Moderation Board of Department of Applied Mathematics, (2010- Till date)
- Worked as coordinator of M.Sc.(Maths & Computing)(2004-07).
- Worked as Faculty in charge, Training & Placement, (2007-2010).
- Worked as In charge of Departmental Computational Lab(2004-2007).
- Worked as Member Moderation Board of Department of Applied Mathematics, (2006-2009)
- Worked as member BOCS of Department of Applied Mathematics.
- Worked as member Departmental Research Committee of Applied Mathematics(2007-2009).
- Worked as Member Time table committee (2007- Sept'2010).

- 16. Foreign Visit :** (i) Vienna University of Technology, Vienna
(ii) Richmond University, USA
(iii) Hampton University, Hampton, USA