BIO-DATA

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3. Institution: Indian Institute of Technology (Indian School of Mines) , Dhanbad
4. Date of Birth: 19/10/1979
5. Gender (M/F/T): Male
6. Category Gen/SC/ST/OBC: OBC
7. Whether differently abled (Yes/No): No
8. Academic Qualification

	Degree	Year	Subject	University/Institution	% of marks
1.	Ph. D	2010	Applied Mathematics	IIT(ISM) Dhanbad	
2.	M. Phil	2006	Applied Mathematics	IIT(ISM) Dhanbad	86.6
3.	M. Sc.	2004	Mathematics & Computing	IIT(ISM) Dhanbad	76.6

9. Ph. D thesis title, Guide's Name, Institute/Organization/University, Year of Award.

Mathematical modeling for propagation of seismic waves in layered media, Prof. S. Gupta,

IIT(ISM), Dhanbad, 2010

10. Work experience (in chronological order).

S.No.	Positions held	Name of The Institute	From	To	Pay Scale
1	Assistant Professor	IIT(ISM), Dhanbad	09.02.2011	05.06.2019	Basic 30000/= with AGP 8000/=
2	Associate Professor	IIT(ISM), Dhanbad	06.06.2019	Till date	Pay scale 13A2, Basic Rs 139600/=

11. Professional Recognition/ Award/ Prize/ Certificate, Fellowship received by the applicant.

S.No	Name of Award	Awarding Agency	Year
1	JRF	IIT(ISM), Dhanbad	2007
2	Merit cum Means	IIT(ISM), Dhanbad	2003

12. Publications *(List of papers published in SCI Journals, in year wise(descending order).*

*Source: Web of Science *(https://jcr.clarivate.com)*

S No.	Publication Title	Authors	Journal Name	Journal Volume	Journal Issue	Year	Start-End page	SCI/ SCOPUS indexed and Impact factor*
1	Shear Wave Propagation in a Sandwich Layered Piezoelectric Microbeam: A Zener Model and Sliding Theory Approach	Sadab, M., **Kundu, S.**	Journal of Sandwich Structures and Materials	27	5	2025		SCIE Q1 3.5
2	A Study of Love Waves in Nonlocal Piezoelectric Plate Induced by a Point Source Using FDA and Green's Function Derivatives	Sadab, M., **Kundu, S.**	Journal of Engineering Mechanics	151	8	2025	104390	SCIE Q1 3.3
3	Characteristics of Rayleigh waves propagation in a micropolar over a dry sandy substrate with fluid saturated porosity and imperfect interface	Devi, D., Santimoy **Kundu, S.,** Sadab, M.,	Mechanics of Solid	59	8	2025		SCIE Q3 0.6
4	Hamiltonian energy and coexistence of spiral wave patterns in lattice array from bidirectional coupled neurons	Debnath, S., **Kundu, S.**	Physica Scripta	100	6	2025	065222	SCIE Q2 2.6
5	Analysis of spiral wave in a Hopfield neural network under electromagnetic induction and control with external magnetic flux	Debnath, S., **Kundu, S.**	Applied Physics A	131	6	2025		SCIE Q2 2.5
6	Dispersive wave propagation in piezoelectric–piezomagnetic imperfectly bonded media with surface	Sadab, M., **Kundu, S.**	Mechanics Research Communications	145		2025	104390	SCIE Q2 2.4

	effects based on strain gradient theory							
7	Modeling of Temperature Dependent Graded Vibration in a Piezoelectric Microbeam Composite Plates with a Sliding Contact	Sadab, M., **Kundu, S.**	Applied Mathematical Modelling	125		2025	115983	SCIE Q1 4.4
8	Wave propagation in piezomagnetic-piezoelectric bilayer structure under sliding contact interface with external magnetic field	Sadab, M., **Kundu, S.**	Applied Physics A	131	4	2025	274	SCIE Q2 2.5
9	Dispersive and attenuation behavior of Love wave in a non-local highly heterogeneous media with imperfect contact condition	Sadab, M., **Kundu, S.**	Physica Scripta	100	1	2025	015276	SCIE Q2 2.6
10	Effects of parameters on the Green's function problem in the presence of an impulsive point source in highly heterogeneous viscoelastic media	Sadab, M., Saikia, G., **Kundu, S.**	ZAMM-Journal of Applied Mathematics and Mechanics	105	5	2025	e70060	SCIE Q1 2.3
11	Case-Wise Study of Linear, Quadratic and Exponential Heterogeneity on Love Wave Propagation Using Green’s Function Derivatives	Sadab, M., Banerjee, S., **Kundu, S.,** Chowdhury, S.,	Journal of Vibration Engineering & Technologies	13	1	2025	36	SCIE Q2 2.7
12	Modeling of shear wave propagation in piezo-viscoelastic microbeam over quadratic heterogeneous viscoelastic plate with sliding contact	Sadab, M., **Kundu, S.**	Smart Materials and Structures	34	2	2025	02007	SCIE Q2 3.8

13	Analysis of Love-Type waves in functionally graded composite structure with interfacial Imperfections	Sadab, M., **Kundu, S.**	International Journal of Geomechanics	24	8	2024	04024170	SCIE 3.7 Q2
14	An analytical model for Love wave in a coated piezoelectric bar via nonlocal theory due to an impulsive source	Sadab, M., **Kundu, S.**	European Journal of Mechanics-A/Solids,	107		2024	105372	SCIE 4.4 Q1
15	Dispersive behavior of SH waves in a smart composite structure of viscoelastic media	Sadab, M., **Kundu, S.**	Wave Motion	130		2024	103355	SCIE 2.4 Q2
16	Love wave propagation characteristics in a fluid-saturated cracked double porous layered structure	Rajak, B.P., **Kundu, S.,** Gupta, S., Kumar, D.	Mechanics of Advanced Materials and Structures	31	11	2024	2349-2361	SCIE 2.9 Q2
17	Effect of Non-Homogeneity and Initial Stress on Torsional Surface Wave Propagation in Initially Stressed Poroelastic Medium Bounded by a Heterogeneous Layer and Half-Space	Majhi,D. K., Kumar. M., Rajak, B.P., **Kundu, S.**	Mechanics of Solids	59	2	2024	831-845	SCIE 0.6 Q3
18	Analysis of Love-type wave in a piezoelectric layer bonded between fiber-reinforced viscoelastic and dual porous media	Sadab, M., **Kundu, S.**	Waves in Random and Complex Media			2024	DOI: 10.1080/17455030.2024.2334266	SCIE 3.330 Q1
19	Effects of physical parameters on shear wave in a porous piezoelectric model with imperfect interface	Sadab, M., **Kundu, S.**	Mechanics of Advanced Materials and Structures			2024	DOI: 10.1080/15376494.2024.2334366	SCIE 2.9 Q2
20	SH-wave propagation in a piezoelectric layer over a heterogeneous dry sandy half-space	Sadab, M., **Kundu, S.**	Acta Mechanica	234	11	2023	5841-5854	SCIE 2.102 Q3

21	Vibrations analysis of propagation of SH-type wave influenced by a point source in a porous piezoelectric layered structure by Green's function approach	Bhengra, N., Kumhar, R., Gupta, S., **Kundu**, S.	Journal of Earth System Science	132	3	2023	135	SCIE 1.9 Q1
22	Analysis the dispersive nature of Love wave in fibre-reinforced compositematerials plate: A Green's function approach	Kumar, D., Kumhar, R., **Kundu, S.,** Gupta, S.	Mathematical Methods in the Applied Sciences	46	4	2023	3445-3462	SCIE 3.007 Q1
23	SH-Wave Propagation in Double Layers Imperfectly Bonded over a Dry Sandy Half-Space	Sadab, M., **Kundu, S.**	International Journal of Geomechanics	23	12	2023	04023228	SCIE 2.589 Q2
24	Impact of imperfectness on the Love-type wave propagation in a viscoelastic composite structure with couple stress	**Kundu, S.,** Kumar, D., Rajak, B.P., Gupta, S.	Journal of Vibration and Control			2023	10775463231188537	SCIE 2.169 Q2
25	Impact of prestressed anisotropic porous and prestressed anisotropic magnetoelastic layers on aLove-type wave	Kumari, C., **Kundu, S.**	International Journal of Geomechanics	23	9	2023	04023143	SCIE 2.589 Q2
26	Love wave propagation in a piezoelectric layer imperfectly bonded over a cracked porous half-space	Sadab, M., **Kundu, S.**	Journal of Vibration and Control			2023	10775463231185610	SCIE 2.169 Q2
27	Effect of initial stresses on the surface wave propagation in highly anisotropic piezoelectric	Kumar, D., **Kundu, S.,**	Waves in Random and Complex Media	DOI:10.1080/17455030.2022.2164093		2023		SCIE 3.330

	composite media							Q1
28	Analytical study of Love-type wave propagation in a composite structure of viscoelastic materials	Sadab., M., **Kundu, S.** Kumar, D., Rajak, B.P.	Acta Mechanica	234		2023	1943-1955	SCIE 2.102 Q3
29	An electromechanical based model for Love-type waves in anisotropic-porous-piezoelectric composite structure with interfacial imperfection	Maity, M., **Kundu, S.,** Kumhar, R., Gupta, S.,	Applied Mathematics and Computation	418		2022	126783	SCIE 3.472 Q1
30	Parametric influence of magneto elasticity, initial stresses, porosity and thickness ratio on the phase and attenuation traits of SH-waves	Kumari, C., **Kundu, S.,** Maity, M., Gupta, S.,	Journal of Intelligent Material Systems and Structures	1045389X 21105305 6		2022		SCIE 2.569 Q2
31	Study of the SH-wave propagation in an FGPM layer imperfectly bonded over a microstructural coupled stress half-space	Rajak,B.P., S **Kundu, S .,** Gupta, S.,	Acta Mechanica	233	2	2022	597-616	SCIE 2.102 Q3
32	Generalized Rayleigh Wave Propagation in Heterogeneous Substratum Over Homogeneous Half-Space Under Gravity	Patra, P., Gupta, A. K., **Kundu, S.,**	Methods of Mathematical Modelling and Computation for Complex Systems			2022	229-252	
33	Analytical study of electro-mechanical parameters on Love wave in an imperfectly bonded VPCM layered structure	Kumari,C., **Kundu, S.,** Maity, M., Gupta, S.,	Mechanics Based Design of Structures and Machines	51	10	2021	5510-5530	SCIE 6.539 Q2

34	Study of the SH-wave propagation in an FGPM layer imperfectly bonded over a microstructural coupled stress half-space	Rajak, B.P., **Kundu, S.,** Gupta, S.,	Acta Mechanica	233		2021	597-616	SCIE 2.102 Q3
35	Dispersion of SH-wave in a heterogeneous orthotropic layer sandwiched between an inhomogeneous semi-Infinite medium and a heterogeneous elastic half-space	Prasad, R.M., **Kundu, S.,**	Journal of Solid Mechanics			2021	413-426	Q3 as per SJR 0.53
36	Analysis of SH-wave propagation in magnetoelastic fiber-reinforced layer resting over inhomogeneous viscoelastic half-space with corrugation	Kumar, D., **Kundu, S.,** Gupta, S.,	International Journal of Geomechanics	21	11	2021	04021212	SCIE 2.589 Q2
37	Comparative study of the piezo-viscous effect of SH wave propagation with irregular and irregular free interfaces in different piezo-electric stratified media	Kumari,C., **Kundu, S.,** Maity, M., Znak, V.I.,	Waves in Random and Complex Media			2021	1-18	SCIE 3.330 Q1
38	Surface wave scattering analysis in an initially stressed stratified media	Mandi, A., **Kundu, S.,** Pal, P.C.,	Engineering Computations	38	8	2021		SCIE Q3
39	Love wave in porous layer under initial stress over heterogeneous elastic half-space under gravity and initial stress	Gupta, A.K., Mukhopadhyay, A.K., **Kundu, S.,** Patra, P.,	Geofísica Internacional	60	3	2021	193-210	

40	Impact of torsional waves in dry sandy desert with sand dunes.	Paul, P., **Kundu,S.,**	Journal of Vibration Engineering & Technologies			2021		SCIE 2.433 Q3
41	Effect of surface waves in orthotropic crystal layer overlying an initial stressed elastic half-space due to point source	Paul, P., **Kundu, S.,**	Arabian Journal of Geosciences	14	7	2021	1-7	SCIE 1.327 Q4
42	Influence of point source on Love-type waves in anisotropic layer overlying viscoelastic FGM half-space: Green's function approach	**Kundu, S**., Kumhar, R., Maity, M., Gupta, S.,	International Journal of Geomechanics	20	1	2020		SCIE 2.589 Q2
43	Analysis of interfacial imperfections and electro-mechanical properties on elastic waves in porous piezo-composite bars	Kumhar, R., **Kundu, S.,** Maity, M., Gupta, S.	International Journal of Mechanical Sciences	187		2020	105926	SCIE 4.631 Q1
44	Comparative study of torsional wave profiles through stratified media with fluted boundaries	Maity, M., **Kundu, S.,** Kumari, A., Gupta, S.,	Structural Engineering and Mechanics	74	1	2020	91-104	SCIE 2.984 Q2
45	Vibrational analysis of Love waves in a viscoelastic composite multi-layered structure	Kumar, D., **Kundu, S.,** Kumhar, R., Gupta, S.,	Acta Mechanica	231	10	2020	4199-4215	SCIE 2.102 Q3

46	Green's function and surface waves in a viscoelastic orthotropic FGM enforced by an impulsive point source	Kumhar, R., **Kundu, S.,** Pandit, D.K., Gupta, S.,	Applied Mathematics and Computation	382		2020	125325	SCIE 3.472 Q1
47	Dispersion of Love waves in pre stressed double-layered medium over a gravitating half-space	Prasad, B., **Kundu, S.,** Pal, P.C., Alam, P.,	Arabian Journal of Geosciences	13		2020	1-13	SCIE 1.327 Q4
48	Modelling of Love waves in fluid saturated porous viscoelastic medium resting over an exponentially graded inhomogeneous half-space influenced by gravity	Kumhar, R., **Kundu, S.,** Gupta, S.,	Journal of Applied and Computational Mechanics	6	3	2020	517--530	ESCI 1.40
49	An analytical study on the Rayleigh wave generation in a stratified structure	Mandi, A., **Kundu, S.,** Pati, P., Pal, P.C.,	Applied Mathematics and Mechanics	41		2020	1039-1054	SCIE 2.017 Q3
50	Influence of mechanical imperfection on the transference of Love-type waves in viscoelastic substrate Overloaded by visco-Micropolar composite structure	Maity, M., **Kundu, S.,** Kumhar, R., Gupta, S.,	Engineering Computations	37	9	2020	3407-3429	SCIE 1.322 Q3

51	Dispersion of Stoneley waves through the irregular common interface of two hydrostatic stressed MTI media	Chowdhury, S., **Kundu, S.,** Alam, P., Gupta, S.,	Scientia Iranica			2020		SCIE 1.017 Q3
52	Analysis of dispersion and damping characteristics of Love wave propagation in orthotropic visco-Elastic FGM layer with corrugated boundaries	Kumari, C., **Kundu, S.,** Kumari, A., Gupta, S.,	International Journal of Geomechanics	20	2	2020		SCIE 2.589 Q2
53	Effect of rigid boundary on Rayleigh wave in an incompressible heterogeneous medium over an incompressible half-space	Mukhopadhyay, A. K., Gupta, A. K., **Kundu, S.,** Patra, P.,	Aims Mathematics	5	3	2020	2098-2099	SCIE 0.882 Q2
54	Love wave propagation in an anisotropic viscoelastic layer over an Initially stressed inhomogeneous half-space	Prasad B., Pal P.C., **Kundu, S.,**	Advances in Structural Vibration			2020	469-479	ESCI
55	Mechanical waves study in tri-materials bars having sinusoidally interfaces (ie fiber-reinforced, poroelastic & isotropic)	Kumhar, R., **Kundu, S.,** Maity, M., Gupta, S.,	Materials Research Express	6	12	2019		SCIE 1.929 Q3

56	Propagation and attenuation characteristics of Rayleigh waves induced due to irregular surface in liquid-saturated micropolar porous half-space	Kumari, A., **Kundu, S.,** Gupta, S.,	The European Physical Journal Plus	134	11	2019	576	SCIE 2.604
57	Dispersion of torsional surface wave in a pre-stressed heterogeneous layer sandwiched between anisotropic porous half-spaces under gravity	Prasad, R. M., **Kundu,S.,**	Journal of Solid Mechanics	11	4	2019	707-723	Q3 as per SJR 0.53
58	Impact of initial stress on reflection and transmission of SV-wave between two orthotropic thermos elastic half-spaces	Prasad, B., **Kundu, S.,** Pal, P.C.,	Journal of Solid Mechanics	11	4	2019	778-789	Q3 as per SJR 0.53
59	An analytic study on the dispersion of Love wave propagation in double layers lying over inhomogeneous half-space	Mandi, A., **Kundu, S.,** Pal, P. C., Pati, P.,	Journal of Solid Mechanics	11	1	2019	570-580	Q3 as per SJR 0.53
60	Dispersion and attenuation characteristics of Love-type waves in a fiber-reinforced composite over a viscoelastic substrate	Alam, P., **Kundu, S.,** Badruddin, IA., Khan, T.M.Y.,	Physics of Wave Phenomena	27	4	2019	281-289	SCIE 0.745 Q4
61	Love wave propagation in a fiber-reinforced layer with corrugated boundaries overlying heterogeneous half-space	Mandi, A., **Kundu, S.,** Pati, P., Pal, P. C.,	Journal of Applied and Computational Mechanics			2019		ESCI 1.40

62	Effect of irregularity on torsional surface waves in an initially stressed porous layer sandwiched between two non-Homogeneous half-spaces	Saha, A., **Kundu, S.,** Gupta, S., Vaishnav, P.K.,	Proceedings of the National Academy of Sciences, India Section A: Physical Sciences	89	1	2019	171-183	ESCI 0.754
63	Effect of magneto-Elasticity, hydrostatic stress and gravity on Rayleigh waves in a hydrostatic stressed magneto-elastic crystalline medium over a gravitating half-space with sliding contact	Alam, P., **Kundu, S.,** Gupta, S.,	Mechanics Research Communications	89		2018	1-17	SCIE 2.282 Q2
64	Study of Rayleigh type surface wave in the initial stressed irregular bottom of ocean due to Point source	Paul, P., **Kundu, S.,** Mandal, D.,	Waves in Random and Complex Media	28	1	2018	76-95	SCIE 3.330 Q1
65	Study of torsional wave in a poroelastic medium sandwiched between a layer and a half-space of heterogeneous dry Sandy media	Alam, P., **Kundu, S.,** Gupta, S., Saha, A.,	Waves in Random and Complex Media	28	1	2018	182-201	SCIE 3.330 Q1
66	Dispersion and attenuation of Love- type waves due to a point source in magneto-viscoelastic Layer	Alam, P., **Kundu, S.,** Gupta, S.,	Journal of Mechanics	34	6	2018	801-816	SCIE 1.293 Q3
67	Three-dimensionalGreen's function approach for analysis of dispersion and attenuation curve in fibre-reinforced heterogeneous viscoelastic layer due to a point source	**Kundu, S.,** Kumari, A., Gupta, S.,	Applied Mathematics and Computation	338		2018	387-399	SCIE 3.472 Q1

68	Surface wave propagation in an initially stressed heterogeneous mediumhaving a sandylayer andapoint source	Manna, S., Misra, J.C., **Kundu, S.,** Gupta, S.,	Geomechanic s and engineering	16	2	2018	169-176	SCIE 2.485 Q2
69	Dispersion study of SH-wave propagation inan irregular magneto-elasticanisotropic crustal layer over an irregular heterogeneous half- space	Alam, P., **Kundu, S.,** Gupta,S.,	Journal of King Saud University -Science	30	3	2018	301-310	SCIE 3.819 Q2
70	Characteristics of torsional wave profiles in a viscous fiber- reinforced layer restingover a sandy half-space under gravity	Maity, M., **Kundu, S.,** Pandit, D. K., Gupta, S.,	International Journal of Geomechanics	18	7	2018	060180 15	SCIE 2.589 Q2
71	Love-type wave propagation in a hydrostatic stressed magneto-elastic transversely isotropic strip over an inhomogeneous substrate caused by adisturbance point source	Alam, P., **Kundu,S. ,** Gupta,S.,	Journal of Intelligent Material Systems and Structures	29	11	2018	2508-2521	SCIE 2.410 Q2
72	Effect of magneto-elasticity, hydrostatic stress and gravity on Rayleigh waves in a hydrostatic stressed magneto-elastic crystalline medium overa gravitating half-space,	Alam, P., **Kundu,S. ,** Gupta,S.,	Mechanics Research Communi cations	89		2018	11-17	SCIE 2.282 Q2

73	Torsional waves in a fiber composite mediumat a loosely bonded interface constrained between dry sandy layerand gravitating poroelastic substrate	Gupta, S., **Kundu, S.,** Pati, P.,	International Journal of Computational Methods			2018	1840030	SCIE 1.716 Q3
74	Scattering of torsional surface waves in a three layered model structure	Gupta, S., Pati, P., Mandi, A., **Kundu, S.,**	Structural Engineering and Mechanics	68	4	2018	443-457	SCIE 2.984 Q2
75	Shear waves through non planar interface between anisotropic inhomogeneous and visco-elastic half- spaces	Prasad, B., Pal, P.C., **Kundu, S.,**	Journal of Solid Mechanic s	10	3	2018	637-654	Q3 as per SJR 0.53
76	Theoretical analysis of torsional wave propagation in a heterogeneous aeolotropic stratum over a Voigt-Type viscoelastic half-space	Manna, S., **Kundu, S.,** Misra, J.C.,	International Journal of Geomechaics	18	6	2018	04018050	SCIE 2.589 Q2
77	Torsional waves in fluid saturated porous layer clamped between two anisotropic media	Gupta, S., **Kundu, S.,** Pati, P., Ahmed, M.,	Geomechanic s and Engineering	15	1	2018	645-657	SCIE 2.485 Q2
78	Dispersion of Love wavein a fiber- reinforced medium lying over a heterogeneous half- space with rectangular irregularity	Prasad, R.M., **Kundu, S.,**	Journal of Solid Mechanics	10	3	2018	591-602	Q3 as per SJR 0.53

79	Using the cluster analysis for the statistical study of vibro-seismic waves for a more accurate estimation of their arrival times.	Znak, V.I., **Kundu, S.,** Fatyanov , A. G.,	Advance Research Journal of Multi-Disciplinary Discoveries	32	1	2018	66-73	
80	Effect of initial stress onthe propagation and attenuation Characteristics of Rayleigh waves	**Kundu, S.,** Maity, M., Pandit, D.K., Gupta, S.,	Acta Mechanica,	230	1	2018	67-85	SCIE 2.102 Q2
81	Shear waves in magneto-elastic transversely isotropic (MTI) layer bonded between two Heterogeneous elastic media	**Kundu, S.,** Alam, P., Gupta, S.,	Mechanics of Advanced Materials and Structures			2017	1-9	SCIE 3.517 Q1
82	Effect of surface wave propagation in a four-Layered oceanic crust model	Paul, P., **Kundu, S.,** Mandal, D.,	Acta Geophysica	65	6	2017	1119-1131	SCIE 1.395 Q4
83	Dispersion and attenuation of torsional wave in a viscoelastic layer bonded between alayer and a half-space of dry sandy media	**Kundu, S.,** Alam, P., Gupta, S.,	Applied Mathematics and Mechanics	38	9	2017	1313-1328	SCIE 2.017 Q3
84	Propagation of Love wave in viscoelastic sandy medium lying over pre-stressed orthotropic half-space	Pandit, D. K., **Kundu, S.,**	Procedia engineering	173		2017	996-1002	Scopus 0.97
85	Torsional wave propagation in an initially stressed anisotropic heterogeneous crustallayer lying over a viscoelastic half-space	**Kundu, S.,** Kumari, A.,	Procedia engineering	173		2017	980-987	Scopus 0.97

86	Propagation of SH- waves through non planer interface between visco-elasticand fiber-reinforced solid half-spaces	Prasad, B., Pal, P. C., **Kundu, S.,**	Journal of Mechanics	33	4	2017	545-557	SCIE 1.293 Q3
87	Love wave propagationin heterogeneous micropolar media	**Kundu, S.,** Kumari, A., Pandit, D. K., Gupta, S.,	Mechanics Research Communi cations	83		2017	6-11	SCIE 2.282 Q3
88	Dispersion of Love wave in a heterogeneous orthotropic layer undercompressive pre-stress lying over an isotropic elastic half-space with rectangular irregularity	Prasad, R.M., **Kundu, S.,**	Procedia computer science	115		2017	22-29	1.26
89	Effect of gravity and initial stresses on torsional surface wavesin dry sandy medium under rigid layer	Gupta, A.K., **Kundu, S.,** Patra, P., Mukhopadhyay, A.K.,	Procedia engineering	173		2017	1042-1047	Scopus 0.97
90	Edge wave Propagation in an initially stressed drysandy plate	**Kundu, S.,** Maity, M.,	Procedia engineering	173		2017	1029-1033	Scopus 0.97
91	Dispersion of Torsional surface wavein a pre-stress anisotropic porous medium with rigid andtraction free boundary surface over sandy half-space	Prasad, R.M., **Kundu, S.,**	Procedia computer science	115		2017	771-778	1.26

92	Propagation of torsional surface wave in sandy layer sandwiched Between a non-homogeneous and a gravitating anisotropic porous semi-infinite Media	Prasad, R.M., **Kundu, S.,** Gupta, S.,	Journal of Vibration and Control	23	11	2017	1768-1781	SCIE 2.169 Q2
93	Love wave behavior in composite fiber-Reinforced Structure	Vaishnav, P. K., **Kundu, S.,** Abo-Dahab, S. M., Saha, A.,	International Journal of Geomechanics	17	9	2017	06017009	SCIE 2.589 Q2
94	Torsional surface wave dispersion in Pre-stressed dry sandy layer over a gravitating anisotropic porous half-space	Prasad, R. M., **Kundu, S.,**	ZAMM-Journal of Applied Mathematics and Mechanics/Zeitschrift für Angewandte Mathematik und Mechanik	97	5	2017	550-560	SCIE 1.103 Q2
95	Propagation of Love waves in a void medium over a sandy half space under gravity	Patra, P., Gupta, A. K., **Kundu, S.,**	Acta Geophysica	65	2	2017	269-274	SCIE 0.79 Q4
96	Influence of initial stress and gravity on torsional surface wave in heterogeneous medium	Mukhopadhyay, A. K., Gupta, A. K., **Kundu, S.,** Manna, S.,	Journal of Vibration and Control	23	6	2017	970-979	SCIE 2.169 Q2
97	Propagation of Love waves in a prestressed voigt-type viscoelastic orthotropic functionally graded layer over a	Pandit, D. K., **Kundu, S.,** Gupta, S.,	Acta Mechanica	228	3	2017	871-880	SCIE 2.102 Q2

	Porous half-space							
98	Impacts on the propagation of SH-waves in a heterogeneous viscoelastic layer sandwiched between an anisotropic porous layer and an initially stressed isotropic half Space	**Kundu, S.,** Alam, P., Gupta, S., Pandit, D. K.,	Journal of Mechanics	33	1	2017	13-22	SCIE 1.293 Q4
99	Analysis of dispersion and absorption characteristics of shear waves in sinusoidally corrugated elastic medium with void pores	Pandit, D. K., **Kundu, S.,** Gupta, S.,	Royal Society open science	4	2	2017	160511	SCIE 2.646 Q2
100	Influences of heterogeneities and initial stresses on the propagation of Love-type waves in a transversely isotropic layer over an inhomogeneous half-Space	Alam, P., **Kundu, S.,**	Journal of Solid Mechanics	9	4	2017	783-793	Q3 as per SJR 0.53
101	Torsional surface wave propagation in anisotropic layer sandwiched between heterogeneous half-space	Vaishnav, P. K., **Kundu, S.,** Abo-Dahab, S. M., Saha, A.,	Journal of Solid Mechanics	9	1	2017	213-224	Q3 as per SJR 0.53
102	SH wave propagation in a finite thicker layer of the void pore sandwiched by heterogeneous	Saha, A., **Kundu, S.,** Gupta, S., Vaishnav, P.K.,	International Journal of Geomechanics,	17	5	2016	06016033	SCIE 2.589

	Orthotropic media							Q2
103	Effect of periodic corrugation, reinforcement, heterogeneity and initial stress on Love wave propagation	**Kundu, S.,** Kumari, A., Gupta, S., Pandit, D.K.,	Waves in Random and Complex Media	26	4	2016	485-515	SCIE 3.330 Q1
104	Love wave propagation in a fiber-reinforced medium sandwiched between an isotropic layer and gravitating Half-space	**Kundu, S.,** Pandit, D.K., Gupta, S., Manna, S.,	Journal of Engineering Mathematics	100	1	2016	109-119	ESCI 1.434 Q3
105	Effect of irregularity on torsional surface waves in an initially stressed anisotropic porous layer sandwiched between homogeneous and non-homogeneous half-space	Saha, A., **Kundu, S.,** Gupta, S., Vaishnav, P.K.,	Journal of Earth System Science	125	4	2016	885-895	SCIE 0.890 Q4
106	Propagation of torsional surface wave in anisotropic layer between two half-spaces	Vaishnav, P. K., **Kundu, S.,**	Procedia engineering	144		2016	1270-1277	Scopus 0.97
107	Propagation of Love-type wave in porous medium over an orthotropic semi-infinite medium with rectangular irregularity	Vaishnav P.K., **Kundu, S.,** Gupta, S., Saha, A.	Mathematical Problems in Engineering			2016	2081505	SCIE 1.009 Q3
108	Propagation of torsional wave in a non-homogeneous crustal layer over a dry sandy	**Kundu, S.,** Saha, A., Gupta, S., Manna, S.,	Meccanica	50	12	2015	3029-3040	SCIE 2.153

	mantle							Q2
109	Effect of Reinforcement and inhomogeneity on the propagation of Love waves	Manna, S., **Kundu, S.,** Gupta, S.,	International Journal of Geomechanics	16	2	2015	040150 45	SCIE 2.589 Q2
110	Influence of rigid boundary on the propagation of torsional surface wave in an inhomogeneous layer	Gupta, S., Sultana, R., **Kundu, S.,**	Journal of earth system science	124	1	2015	161-170	SCIE 0.853 Q4
111	Love waves in a heterogeneous orthotropic layer under initial stress overlying a gravitating porous half-space	Saha, A., **Kundu, S.,** Gupta, S., Vaishnav P. K.,	Proc. Indian National Sci Acad,	81	5	2015	1193-1205	
112	Propagation of torsional surface wave in an anisotropic porous medium over a dry sandy half-space	**Kundu, S.,** Prasad, R.M., Gupta, S., Manna, S.,	International Journal of Geomechanics	16	2	2015	040150 50 .	SCIE 2.589 Q2
113	Propagation of torsional surface wave in a nonhomogeneous anisotropic layer over heterogeneous half-space	**Kundu, S.,** Gupta, S., Saha, A. Manna, S.,	Journal of Vibration and Control	22	16	2014	3479-3490	SCIE 2.169 Q2
114	Propagation of Love waves in a heterogeneous medium over an inhomogeneous Half-space under the effect of point source.	**Kundu, S.,** Gupta, S., Vaishnav, P.K., Manna, S.,	Journal of Vibration and Control	22	5	2014	1380-1391	SCIE 2.169 Q2

115	Propagation of Love wave in fiber-reinforced medium over a non-homogeneous half-space	**Kundu, S.,** Gupta, S., Manna, S. Dolai, P.,	International Journal of Applied Mechanics	6	5	2014	1450050	SCIE 2.449 Q2
116	Propagation of SH-wave in an initially stressed orthotropic medium sandwiched by a homogeneous and an inhomogeneous semi-Infinite media	**Kundu, S.,** Manna, S., Gupta S.,	Mathematical Methods inthe Applied Sciences	38	9	2014	1926-1936	SCIE 1.626 Q2
117	Propagation of Love wave in fiber-reinforced medium lying over an initially stressed orthotropic half-space	**Kundu, S.,** Gupta, S., Manna, S.,	International Journal for Numerical and Analytical Methods in Geomechanics	38	11	2014	1172-1182	SCIE 2.814 Q2
118	Propagation of G-type seismic waves in heterogeneous layer lying over an initially stressed heterogeneous Half-space	**Kundu, S.,** Gupta, S., Manna, S.,	Applied Mathematics and Computation	234		2014	1-12	SCIE 3.472 Q1
119	SH-type waves dispersion in an Isotropic medium sandwiched between an initially stressed orthotropic and heterogeneous semi-infinite media	**Kundu, S.,** Gupta, S., Manna, S.,	Meccanica	49	3	2014	749-758	SCIE 2.153 Q2

120	Love wave dispersion in pre-stressed homogeneous medium over a porous half-space with irregular Boundary surfaces	**Kundu, S.,** Manna, S., Gupta S.,	International Journal of Solids and Structures	51	21-22	2014	3689-3697	SCIE 3.213 Q1
121	Propagation of Love type wave in piezoelectric layer overlying non-homogeneous half-space	Manna, S., **Kundu, S.,** Gupta S.,	Electronic Journal of Mathematics and Technology	8	1	2014	1-17	
122	Love wave propagation in a piezoelectric layer overlying in an inhomogeneous elastic half-space	Manna, S., **Kundu, S.,** Gupta S.,	Journal of Vibration and Control	21	13	2013	2553-2568	SCIE 2.169 Q1
123	Propagation of Love waves in a non-homogeneous substratum over an initially stressed heterogeneous half-Space	Gupta, S., Majhi, D.K., **Kundu, S.,** Vishwakarma, S.K.,	Applied Mathematics and Mechanics	34	2	2013	249-258	SCIE 2.017 Q3
124	Possibility of Love wave propagation in a porous layer under the effect of linearly varying directional rigidities	Gupta, S., Vishwakarma, S. K., Majhi, D. K., **Kundu, S.,**	Applied Mathematical Modelling	37	10-11	2013	6652-6660	SCIE 3.633 Q1
125	Love wave propagation in porous rigid layer lying over an initially stressed half-space	**Kundu, S.,** Gupta, S., Chattopadhyay, A., Majhi, D. K.,	International Journal of Applied Physics and Mathematics	3	2	2013	140-142	
126	Influence of linearly varying density and rigidity on torsional surface waves in inhomogeneous crustal layer	Gupta, S., Vishwakarma, S. K., Majhi, D. K., **Kundu, S.,**	Applied Mathematics and Mechanics	33	10	2012	1239-1252	SCIE 2.017 Q3

127	Propagationof torsional surface waves in a homogeneous layer of finite thickness over an initially stressed heterogeneous half-Space	Gupta,S., Majhi, D.K., **Kundu, S.,** Vishwakarma, S.K	Applied Mathematics and Computation	218	9	2011	5655-5664	SCIE 3.472 Q1
128	Propagation of torsional surface waves under the effect of irregularity and initial stress	Gupta,S., Majhi, D.K., Vishwakarma, S.K., **Kundu, S.,**	Applied Mathematics	2	12	2011	1453-1461	
129	Effect of rigid boundary on the propagation of torsional waves in a homogeneous layer over a heterogeneous Half-space	Gupta, S., Chattopadhyay, A., **Kundu, S.,** Gupta, A.K,	Archive of Applied Mechanics,	80	2	2010	143-150	SCIE 1.374 Q3
130	Influence of Irregularity and Rigidity on the Propagation of torsional wave	Gupta, S., Chattopadhyay, A., **Kundu, S.,**	Applied Mathematical Sciences	4	17-20	2010	805-816	0.43
131	Propagation of torsional surface waves in gravitating anisotropic porous half space with rigid boundary	Gupta, S., Chattopadhyay, A., **Kundu, S.,** Gupta, A.K.,	Int. J. Appl. Math. Mech	6	11	2010	17-25	

List of Ph. D Supervised:

S. No	Name of Student	Title	Awarded in the year	Role
1	Santanu Manna	Mathematical study of seismic wave propagation in layered media	2015	Guide
2	Pramod Kr. Vaishnav	Theoretical study on seismic waves in anisotropic layered media	2017	Guide
3	Anup Saha	Mathematical study of seismic waves in anisotropic and heterogenous media	2017	Guide
4	Sabitri Majhi	Theoretical study of elasto-dynamic wave propagation in inhomogeneous, functionally graded and visco-elastic layered media	2017	Guide (Co-Guide: Prof. P.C. Pal)
5	Ratan Mani Prasad	Study of elastic waves in heterogeneous layered media	2017	Guide
6	Deepak Kumar Pandit	Analytical study of seismic waves in heterogeneous and anisotropic layered media	2018	Guide
7	Parvez Alam	Theoretical study of seismic wave propagation in various types layered media	2018	Guide
8	Biswanath Prasad	Study of elastic wave propagation in inhomogeneous thermoelastic and visco-elastic layered media	2018	Guide (Co-Guide: Prof. P.C. Pal)
9	Anup Kumar Mukhopadhyay	Study of surface waves in anisotropic and non-homogeneous media	2019	Guide (Co-Guide: Dr. A.K. Gupta)
10	Pasupati Pal	Propagation of elastic waves in layered media	2019	Guide (Co-Guide: Dr. D. Mandal)
11	Alka Kumari	Mathematical analysis of traversal attributes of seismic waves through various heterogeneous and micropolar stratified Earth models	2020	Guide
12	Manisha Maity	Mathematical investigation of traversal behaviour of seismic surface waves through anisotropic and voigt-type viscoelastic composite Earth's structures	2020	Guide
13	Anand Mandi	Theoretical Investigation on the propagation of Torsional, Love, Rayleigh, and shear Waves in layered Media	2021	Guide (Co-Guide: Prof. P.C. Pal)
14	Prasenjit Pati	Analysis of dispersion characteristics of Love, Torsional and Rayleigh type surface waves in stratified media	2021	Co-Guide (Guide: Prof. S. Gupta)
15	Raju Kumar	Mathematical analysis to study the characteristics of shear wave propagation in Earth's layered structures	2021	Guide

16	Chandani Kumari	Mathematical Investigation of Surface Waves in Piezo-electric, Magneto-elastic and other Anisotropic Media	2022	Guide
17	Bhanu Pratap Rajak	Mathematical study of elasto-dynamic waves propagation in functionally graded, magneto-elastic and double porous layered media	2022	Guide
18	Dharmendra Kumar	Mathematical Study of Surface waves Propagating in Fiber-reinforced, Piezoelectric and Viscoelastic Functionally graded Composite Structure	2023	Guide
19	Pulak Patra	Theoretical Study Of Seismic Waves In Sandy, Heterogeneous and Magneto-Thermoelastic Media	2024	Guide (Co-Guide: Dr. A.K. Gupta)
20	Mohd Sadab	Design and Modeling of Shear Wave Propagation in Piezoelectric Composite Structures	2025	Guide

8. **ONGOING / COMPLETED PROJECTS WITH THE INDIAN PRINCIPAL INVESTIGATOR:**

National Projects:

S. No.	Project Title	Sponsoring Agency	Budget (in Lakh)	Role	Status
1	Mathematical Investigations on Love type wave propagation in anisotropic media	SERB-DST	6.6	PI	Completed
2	Analytical modelling of surface waves in fiber-reinforced and micro-polar media	SERB-DST	19.23	PI	Completed
3	Applications of various machine learning (ML) techniques for predicting, detecting, and analyzing rare earth elements (REEs) in different geological and environmental contexts.	TexMiN, Institute Innovation Hub, Dhanbad	16.618	Co-PI	Ongoing

International Projects:

S. No.	Project Title	Name of the Colloborating Scientist & Institiute	Sponsoring Agency	Budget	Status
1	Approach for the processing of data of vibro-seismic waves records and theoretical investigations on seismic waves	Dr. Znak Vladimir Ilich, Senior scientific Researcher of The Institute of Computational Mathematics and Mathematical Geophysics of the Siberian Branch of RAS., Russia	DST-RFBR	15.22	Completed

9. **Details of Outreach Programmes (Professional Development Programmes / Management Development Programmes /Conferences/Seminars Organised)**:

S.N.	Title	Funding Agency	Role (CI/CO-CI)	No. of CO-CI	Duration	Status
1	FIVE DAYS ONLINE WORKSHOP ON SOME ADVANCED TOPICS IN DISCRETE MATHEMATICS (EDP NO: EDP/7147/2023-24)	External	CI	1	Five-Days	COMPLETED
2	FIVE DAYS ONLINE WORKSHOP ON SOFT COMPUTING TECHNIQUES FOR SCIENTIST AND ENGINEERS (EDP NO: EDP/7148/2023-24)	External	CI	1	Five Days	COMPLETED
3	FIVE DAYS SHORT TERM TRAINING PROGRAM ON "SIX SIGMA GREEN BELTS" (EDP NO.- CONS 7501 E)	External	Co-CI		Five days	COMPLETED
4	GIAN COURSE ENTITLED AS INTRODUCTION TO HYDRODYNAMIC STABILITY (COURSE ID- 2700080).	MINISTRY OF EDUCATION, GOVT OF INDIA	CI	0	Five days	COMPLETED
5	DEVELOPED AND DELIVERED ONLINE COURSE UNDER THE NPTEL (NATIONAL PROGRAMME ON TECHNOLOGY ENHANCED LEARNING), SUPPORTED BY THE MINISTRY OF HUMAN RESOURCES DEVELOPMENT, GOVT. OF INDIA ON "SOFT COMPUTING TECHNIQUES" (HTTPS://NPTEL.AC.IN/COURSES/111105614)	AICTE Approved FDP Course	Course Coordinator	0	12 Weeks	COMPLETED