PUBLICATIONS

Journal Publications: International Journal

1. Mishra, A., Das, S.K., Reddy, K.R.(2023) Life cycle triple bottom line sustainability assessment of coal mine overburden sand versus river sand. ***Resources Policy***, 2023, 86, 104140 **IF- 10.4.** https://doi.org/10.1016/j.resourpol.2023.104140.
2. Mishra, P.N., Tiwari, S.K Das, ...Scheuermann, A., Bore, T. (2023) Biological perspectives in geotechnics: theoretical developments Jain, S., ***Reviews in Environmental Science and Biotechnology***, 2023, 22(4), pp. 1093–1130**, IF- 14.4**
3. Mishra, P.N., Tiwari, S.K Das, ...Scheuermann, A., Bore, T. (2023) *Biological perspectives in geotechnics: Application and monitoring* . ***Journal of Rock Mechanics and Geotechnical Engineering***, 2023**, IF- 7.4**
4. Mishra, A., Das, S.K., and Reddy, K.R. (2023), "Life cycle assessment of processing alternate sands for sustainable construction: Coal mine overburden sand versus manufactured sand," ***Journal of Building Engineering,*** Elsevier, pp. 107042. https://doi.org/10.1016/j.jobe.2023.107042, **IF- 6.4.**
5. Mishra, A., Das, S.K., Reddy, K.R.(2023) Characterization and environmental sustainability of open pit coal mine overburden waste rock as pavement geomaterial. ***Transportation Geotechnics***, 2023, 42, 101094. https://doi.org/10.1016/j.trgeo.2023.101094. **IF- 5.3.**
6. Kumar, A., Das, S.K., Nainegali, L., Reddy, K.R. (2023) Effect of grass species root for enhanced slope protection in amended coalmine overburden dump soil. ***Plant and Soil,*** **IF- 4.9, *Q1*.**
7. Tiwari, S., Das, S.K. (2023) Intelligent Prediction of Critical State Parameters for Non-plastic Tailings and Soils Using Evolutionary Algorithms, ***Mining, Metallurgy and Exploration***, IF-1.9, ***Q2***
8. Mishra, A., Das, S.K., Reddy, K.R.(2024) Potential Use of Coal Mine Overburden Waste Rock as Sustainable Geomaterial: Review of Properties and Research Challenges. ***Journal of Hazardous, Toxic, and Radioactive Waste(ASCE)***, 28(1), 04023039 , IF- 2.7
9. Madhumita Mohanty, Rajib Sarkar, Sarat Kumar Das (2023) Effect of blast induced vibration on coal mine overburden dump slope through discrete element method, ***Structures***, Volume 56, https://doi.org/10.1016/j.istruc.2023.105013. **IF- 4.1**
10. Kumar, A., Das, S.K., Nainegali, L., Reddy, K.R. (2023) Investigation of root traits of Dendrocalamus strictus cultivated on organically amended coalmine overburden and its potential use for slope stabilization. ***International Journal of phytoremediation***. http://dx.doi.org/10.1080/15226514.2023.2208235 . **IF-4.00**
11. Kumar, A., Das, S.K., Nainegali, L., Reddy, K.R. (2023) Phytostabilization of coalmine overburden waste rock dump slopes: current status, challenges, and perspectives. ***Bulletin of Engineering Geology and the Environment, 82(4), 130.*** https://doi.org/10.1007/s10064-023-03159-7, **IF- 4.130**
12. M.,Mohanty, R., Sarkar, S.K. Das, (2023). Seismic Performance of Coal Mine Overburden Dump Slope using Extended Finite Element Method based Voronoi Tessellation Scheme. ***International Journal of Geomechanics, ASCE***. DOI: 10.1061/IJGNAI/GMENG-8634. **IF- 3.918.**
13. Mishra, A., Das, S.K., Reddy, K.R.(2023) Valorization of Coalmine Overburden Waste Rock as Fine and Coarse Aggregate of Mortar and Concrete: Corrosion Resistance Evaluation. ***Waste and Biomass Valorization***, https://doi.org/10.1007/s12649-023-02102-x. **IF-3.449.**
14. Mishra, A., Das, S.K., Reddy, K.R.(2023) Potential Use of Coalmine Overburden Waste Rock as Sustainable Geomaterial: Review of Properties and Research

Challenges. **Journal of Hazardous Toxic and Radio active, ASCE**. doi: 10.1061/jhtrbp/hzeng-1258. **IF- 2.7**

15. Kumar, A., Das, S.K., Nainegali, L. et al. Probabilistic Slope Stability Analysis of Coal Mine Waste Rock Dump. **Geotech Geol Eng** (2023) Vol. https://doi.org/10.1007/s10706-023-02541-2, **IF- 1.7**
16. Anshumali Mishra; Sarat Kumar Das; Krishna R Reddy (2023) Use of Coalmine Overburden as Sustainable Fine Aggregate in Cement Mortar , ***Journal of Materials in Civil Enginnering, ASCE, (Accepted) Q2.***
17. Mahasakti Mahamaya; Surabhi Jain; Sarat Kumar Das; Rajdeep Paul (2023) Engineering Properties of Cementless Alkali Activated CLSM using Ferrochrome Slag. Journal of Materials in Civil Enginnering, ASCE, DOI **https://doi.org/10.1061/(ASCE)MT.1943-5533.0004620 Q2.**
18. Surabhi Jain, Sarat Kumar Das (2023) Influence of size and concentration of carbonate biomineral on biocementation and bioclogging for mitigating soil degradation. Biogeotechnics. 1-8, https://doi.org/10.1016/j.bgtech.2023.100021
19. A.Mishra, , S.K., Das, K.R. Reddy, (2022) Processing Coalmine Overburden Waste Rock as Replacement to Natural Sand: Environmental Sustainability Assessment ***Sustainability*** (Switzerland), , 14(22), 14853, https://doi.org/10.3390/su132111937, **IF- 3.889**
20. M.,Mohanty, R., Sarkar, S.K. Das, (2022), Probabilistic assessment of effects of heterogeneity on the stability of coal mine overburden dump slopes through discrete element framework. **Bulletin of Engineering Geology and the Environment**, 81(6), 228. **Q2**
21. M.,Mohanty, R., Sarkar, S.K. Das, (2022), In-situ investigation on coal mine overburden dump slope and its seismic stability considering heterogeneity. ***European Journal of Environmental and Civil Engineering***, https://doi.org/10.1080/19648189.2022.2144952. **IF- 2.187**
22. M.,Mohanty, R., Sarkar, S.K. Das, (2022), In-situ investigation on coal mine overburden dump slope and its seismic stability considering heterogeneity. ***European Journal of Environmental and Civil Engineering***.**Q3**
23. Khatri, V.N., Nainegali, L., Sarkar, R., Das, S.K. (2022). Assessment of overburden dump and highwall slope stability for Jambad open cast coal mine, West Bengal, India, using in situ and laboratory testing. ***Current Science***, 123(2), pp. 184–193 **Q3**
24. Mahamaya, M. **Das, S.K**., S. Jain , Reddy, K.R. (2021) Interaction of biopolymer with dispersive geomaterial and its characterization: An eco-friendly approach for erosion control, **Journal of Cleaner Production,** https://doi.org/10.1016/.jclepro. 2021. 127778. **Q1**
25. S.K. Das, M. Mahamaya and K. R. Reddy (2020). Coal mine overburden soft shale as a controlled low strength material. ***International Journal of Mining, Reclamation and Environment***. **DOI:** 10.1080/17480930.2020.1721043.**Q2**
26. Reddy, P.S., Reddy, N.G., Serjun, V. **S.K. Das**, K.R. Reddy, B.H. Rao(2020). Properties and Assessment of Applications of Red Mud (Bauxite Residue): Current Status and Research Needs. **Waste Biomass Valorization** . https://doi.org/10.1007/s12649-020-01089-z.**Q2/Q3**
27. **Das, S.K**., Mohanty, R., Mohanty, M. and M. Mahamaya **(2020).** Multi-objective feature selection (MOFS) algorithms for prediction of liquefaction susceptibility of soil based on in situ test methods. **Nat Hazards.** https://doi.org/10.1007/s11069-020-04089-3.**Q2**

28. B. Paikray, **S.K. Das** and B.G. Mohapatra (2020) Effect of reinforcement layout on interference effect of square footings on reinforced crusher dust. ***International Journal of Geotechnical Engineering***. doi.org/10.1080/19386362.2020.1712531.
29. P.K.Gupta, P. Rajhans , S.K.Panda, S. Nayak, **S. K. Das** (2019) Mix design method for self-compacting recycled aggregate concrete and its microstructural investigation by considering adhered mortar in aggregate. Journal of ***Materials in Civil Engineering, ASCE.*** DOI 10.1061/(ASCE)MT.1943-5533.0003014. **Q2**
30. Shamshad Alam, Sarat Kumar Das, B. Hanumantha Rao, (2019) Strength and durability characteristic of alkali activated GGBS stabilized red mud as geo-material. **Construction and Building Materials** 211, 932–942, **Q1**
31. Ranajeet Mohanty and **Sarat Kumar Das** (2018) Settlement of Shallow Foundations on Cohesionless Soils Based on SPT Value Using Multi-Objective Feature Selection, **Geotechnical and Geological Engineering, 36(6), 3499-3509. doi:**10.1007/s10706-018-0549-0
32. Shamsad Alam, Bijaya Kumar Das and **Sarat Kumar Das** (2018) Dispersion and Sedimentation Characteristics of Red Mud. **Journal of Hazardous, Toxic, and Radioactive Waste, ASCE,** 22(4),04018025.
33. Mahasakti Mahamaya and Sarat Kumar Das (2018) "Characterization of Ferrochrome Slag as a Controlled Low Strength Structural Fill Material. **International Journal of Geotechnical Engineering**, doi.org/10.1080/19386362.2018.1448527.
34. Shamshad Alam, Sarat Kumar Das, B. Hanumantha Rao, (2017) Characterization of Coarse Fraction of Red Mud as a Civil Engineering Construction Material. ***Journal* of *Cleaner Production***, Vol 168, 679-691, **Q1**
35. Mahasakti Mahamaya and **Sarat Kumar Das** (2017)Characterization of Mine Overburden and Fly Ash as a Stabilized Pavement Material", ***Journal of Particulate Science and Technology***, , Vol 35(6), 660-666. **DOI:** 10.1080/02726351.2016.1194344, **Q3**
36. P.N. Mishra, **S, K, Das and** R. Mohanty (2017) Electrical Conductivity of microbially treated Geomaterials and Industrial Wastes", Journal **of Hazardous, Toxic and Radioactive waste, ASCE**, , Volume 21 (4), 04017009.
37. S. Bhattacharya, Pavani, Sarat Kumar Das, (2017) Prediction of uplift capacity of suction caisson in clay using functional network and multivariate adaptive regression spline, **Scientia Iranica**, , Accepted. Available Online from 13 August 2017 , DOI: 10.24200/sci.2017.4192. **Q3**.
38. Shakti Suman, **Sarat Kumar Das** and Ranajeet Mohanty, (2017)"Prediction of vertical pile capacity of driven pile in cohesionless soil using artificial intelligence techniques" **International Journal of Geotechnical Engineering**, **Taylor Francis**, DOI: 10.1080/19386362.2016.1269043
39. Ipsita Panda, Surabhi Jain, **Sarat Kumar Das**, R, Jayabalan, (2017) Characterization of red mud as a structural fill and embankment material using bioremediation. **International Biodeterioration & Biodegradation**), , Vol 119, 368-376., **Q1/Q2**
40. P.N. Mishra, Shakti Suman, **S, K, Das**, (2017) "Experimental investigation and prediction models for Thermal conductivity of bio-modified buffer materials for Hazardous waste disposal" Journal **of Hazardous, Toxic and Radioactive waste, ASCE**, , Vol 21(2), 04016011, DOI: 10.1061/ (ASCE)HZ.2153-5515.0000327.
41. Shakti Suman, Ranajeet Mohanty and **Sarat Kumar Das**, (2017) Modelling the pullout capacity of ground anchors using multi-objective feature selection. **Arabian Journal for Science and Engineering**, (**SCI**), , Vol 42(3), 1231-1241, DOI :10.1007/s13369-016-2361-6, **Q2**

42. Shakti Suman, S.Z. Khan, S.K. Das, S.K. Chand. (2016),Slope stability analysis using artificial intelligence techniques, **Natural Hazards**, 84(20), 727-748, DOI:10.1007/s11069-016-2454-2 **Q2**
43. Shakti Suman, **Sarat Kumar Das** and Ranajeet Mohanty "Prediction of friction capacity of driven piles in clay using artificial intelligence techniques", **International Journal of Geotechnical Engineering**, **Taylor Francis**, 2016, 10(5), 468-475. **DOI:** 10.1080/19386362.2016.1169009
44. Shakti Suman, Mahasakti Mahamaya and Sarat Kumar Das, (2016) "Prediction of maximum dry density and unconfined compressive strength of cement stabilised soil using artificial intelligence techniques**", Int. Journal of Geosynthetic and Ground Improvement, Springer**, , 2: 11. doi:10.1007/s40891-016-0051-9
45. S. Z. Khan, S. Suman, M. Pavani and **S.K. Das**, (2016) "Prediction of the residual strength of clay using functional network." **Geoscience Frontier**, , Vol 7 (1), 67-74. **Q1**
46. Pradyut Kumar Muduli, **Sarat Kumar Das**, Pijush Samui and Rupashree Sahoo (2015). Prediction of uplift capacity of suction caisson in clay using extreme learning machine. **Ocean Systems Engineering An International Journal**, , Vol.5, No.1, pp.41-54, DOI: http://dx.doi.org/10.12989/ose.2015.5.1.041
47. S. Suman and **S.K. Das (2015)** Prediction of Lateral Load Capacity of Pile in Clay Using Multivariate Adaptive Regression Spline and Functional Network**., Arabian Journal for Science and Engineering,** Volume 40(6), pp 1565-1578**. (SCI). Q2**
48. P.K. Muduli and **S.K. Das (2015)** Model uncertainty of SPT-based method for evaluation of seismic soil liquefaction potential using multi-gene genetic programming, **, Soils and Foundation,** Volume 55, Issue 2, Pages 258-275. **Q2/Q3**
49. P.K. Muduli and **S.K. Das (2015)** "First order reliability method for probabilistic evaluation of liquefaction potential of soil using genetic programming." **, International Journal of Geomechanics , ASCE** , Volume 15, Issue 3, 1 June, Article number 04014052. DOI: 10.1061/(ASCE)GM.1943-5622.0000377 **Q2**
50. P.K. Muduli, **S.K. Das** "Evaluation of liquefaction potential of soil based on standard penetration test using multi-gene genetic programming model"**, Acta Geophysica, 2014,** Vol 62(3), 529-543. DOI: 10.2478/s11600-013-0181-6, **Q3**
51. P.K. Muduli, **S.K. Das,** and S. Bhattacharya CPT-based probabilistic evaluation of seismic soil liquefaction potential using, multi-gene genetic programming, **Georisk**, 2014. Vol 8(1), 14-28. **DOI:** 10.1080/17499518.2013.845720 **Q2**
52. P.K. Muduli, **S.K. Das** and M.R. Das "Uplift Capacity of Suction Caisson in Clay Using Artificial Intelligence Techniques", ***Marine Georesources & Geotechnology, 2013 , Vol 1(4), 375-390. Q3/Q2***
53. P.K. Muduli and **S.K. Das** "SPT-Based Probabilistic Method for Evaluation of Liquefaction Potential of Soil Using Multi-Gene Genetic Programming" ***International Journal of Geotechnical Earthquake Engineering, (2013), Vol 4(1), 42-60.***
54. P.K. Muduli, **S.K. Das** and M.R. Das, "Prediction of lateral load capacity of piles using extreme learning machine" **International Journal of Geotechnical Engineering ,** 2013, Vol 7 (4), pp 388-394**.**
55. Pijush Samui, Dookie Kim, **Sarat Das**, and Gil Lim Yoon, Determination of compression index for marine clay: a relevance vector machine approach. ***Marine Georesources & Geotechnology*** Volume 30 (4), 2012, pp. 263-273.**Q3/Q2**
56. **S. K. Das**, Pijush Samui and A K Sabat Prediction of Field Hydraulic Conductivity of Clay Liners Using Artificial Neural Network and Support Vector Machine ***International Journal of Geomechanics*****, ASCE** 2012, Vol 12(5) 606-611. **Q2**
57. **Sarat Kumar Das**, Pijush Samui, S.Z. Khan and N. Sivakugan , "Machine learning techniques applied to prediction of residual strength of soil" **Central European Journal of Geoscience**, 2011; Vol 3(4), 449-461, DOI: 10.2478/s13533-011-0043-1 **Q4**

58. Pijush Samui, **Sarat Das** and Dookie Kim, "Uplift capacity of suction caisson in clay using multivariate adaptive regression spline" ***Ocean Engineering,*** 2011, Vol 38, (17–18), pp. 2123-2127. **Q1**
59. **S. K. Das** , R. K. Biswal, N. Sivakugan, B. Das, Classification of slopes and prediction of factor of safety using differential evolution neural networks **Environmental Earth science, 2011,** 64 (1). pp. 201-210. **Q2**
60. **S. K. Das**, P Samui, and A K Sabat, Application of Artificial Intelligence to Maximum Dry Density and Unconfined Compressive Strength of Cement Stabilized Soil, ***Geotechnical and Geological Journal : An International Journal***,, 2011, 29 (3), pp. 329-342
61. **S.K. Das**, and P.K. Basudhar Parameter Optimization of Rock Failure Criterion Using Error-In-Variables Approach, , (2011) ***International Journal of Geomechanics*****, ASCE. 2011,** 11 (1), pp. 36-43. **Q2**.
62. **S. K. Das**, P Samui, A K Sabat and T. G. Sitharam "Prediction of swelling pressure of soil using artificial intelligence techniques", , **Environmental Earth science** (2010) Vol 61 (2), 393-403-**Q2**
63. **S.K. Das** and P.K. Basudhar, "Comparison of intact rock failure criteria using various statistical methods**" Acta Geotechnica**, Vol. 4 (3), 2009, pp. 223-231. **Q1**
64. **S.K. Das** and P.K. Basudhar "Utilization of self-organizing map and Fuzzy Clustering for Site Characterization Using Piezocone data" **Computer and Geotechnics** ,**2009**, 36 (1-2), pp. 241-248. **Q1**
65. **S.K. Das** and P.K. Basudhar. "Prediction of Residual Friction Angle of Clays Using Artifical Neural Network "**Engineering Geology**, 2008, Vol 100(3-4), 142- 145. **Q1**
66. **S.K. Das** and Yudhbir, "A simplified model for prediction of pozzolanic characteristics of fly ash, based on chemical composition. ***Cement and Concrete Research, 2006, October Vol 36(10),*** *1827-1832.* **Q1**
67. **S.K. Das** and P.K. Basudhar, "Undrained lateral load capacity of piles in clay using artificial neural network" **Computer and Geotechnics 2006, Vol 33(8),** *454-459.* **Q1**
68. **S.K. Das and** P.K. Basudhar**,** "Comparison study of parameter estimation techniques for rock failure criterion models." ***Canadian Geotechnical Journal, 2006, July, 43(7), pp. 764-771.*** **Q2**
69. **S.K. Das** and Yudhbir, "Geotechnical properties of low calcium and high calcium fly ash", ***Geotechnical and Geological Journal : An International Journal***, 2006, April, pp. 249-263.
70. **S.K. Das** and Yudhbir, "Geotechnical Characterization of some Indian Fly ashes", ***Journal of Materials in Civil Engineering, ASCE, 2005 , 17(5), pp. 544- 552.*** **Q2**

Journal National

1. Manas Ranjan Das**,** Sandip Purohit , **Sarat Kumar Das**, "Multi-objective Optimization of Reinforced Cement Concrete Retaining Wall"**,** ***Indian Geotechnical Journal, 2016, Vol 46 (4),*** 354-368, ***DOI,***10.1007/s40098-015-0178-y
2. Sujata Priyadarshini, Mahasakti Mahamaya and **Sarat Kumar Das**,Characterization and Design of coal reject as a pavement material, ***Journal of Indian Highways***, 2015, Vol 44 (04),
3. **S.K.Das** and P.S. Parhi, "Suitability of alkali activated fly ash binder as a stabilizing agent for highly expansive soil", **Journal of Indian Highways**, Vol 43 (12), Dec 2015, pp. 21-26.
4. S.K. Das, S. Rout and S. Alam**,** "NITR Compactor - A Laboratory Vibratory Compactor for Compaction of Granular Material" **Journal of Indian Highways**, Vol 43 (10), Oct 2015, pp. 27-31.
5. M.R. Das and **S.K. Das** "Optimal design of sheet pile wall embedded in clay" **Journal of The Institution Of Engineers (India): Series A (128) ,** September 2015, Volume 96, Issue 3, pp 249-258
6. P.K. Mududli, M.R.Das, **S.K. Das,** S. Senapati. "Lateral Load capacity of Piles in Clay using Genetic Programming and Multivariate Adaptive Regression Spline.", ***Indian Geotechnical Journal. September 2015, Volume 45,*** (3), ***pp 349-359,*** *DOI 10.1007/s40098-014-0142-2*

7. P.K. Muduli and **S.K. Das** "CPT-based seismic liquefaction potential evaluation using multi-gene genetic programming approach" ***Indian Geotechnical Journal, , 2014, March Vol 44(1), 86-93.***
8. S.K. Das, S. Rout and T Sahoo, "Design of High Embankment Using Red Mud", **Journal of Indian Highways** , March, 2013
9. **S.K. Das** and M.R. Das, "Optimum design of RCC cantilever retaining wall using a simple optimization tool", **Journal of Indian Highways**, February 2011**.**
10. J. Mohanty and **S.K. Das**, "High volume fly ash concrete for pavement of rural roads", Journal of **Indian Highways**, December 2009.
11. A.K. Sabat and **S.K.Das**, "Design Of Low Volume Rural Roads Using Lime Stabilized Expansive Soil –Quarry Dust Mixes Subgrade", **Journal of Indian Highways**, September 2009.
12. **S.K.Das,** "Geotechnical Characterization of Soil Stabilized With High Calcium Fly Ash." **Highway Research Bulletin, IRC, July 2007**.
13. ***S.K. Das*** and P.K. "Parameter estimation of Hoek-Brown rock failure criterion", Basudhar, ***Indian Geotechnical Journal, April 2005.*** Vol 35 (***2), pp. 144 – 153.***
14. **S. K. Das** , Design of RC slabs to satisfy both bending and deflection criteria", ***Indian Concrete Journal, March, 2004.(1)***
15. **S.K. Das** and Yudhbir "Chemistry and Mineralogy of some Indian Fly ashes", , ***Indian Concrete Journal, December, 2003****.(2)*
16. **S.K. Das**, *"*Morphology of Some Indian Fly ashes*"* ***Indian Concrete Journal, September, 2003****.(3)*
17. **S.K. Das**, and S.C. Mishra, (2000) *"*Lesson learnt from distress of several civil engineering structures under the influence of Recent super cyclone in Orissa and the need to Introduce matching safeguards for enhanced durability*"*. ***The Bridge and Structural Engineer***, ING-IABSE,.

BOOKS

1. Geoenvironmental and Geotechnical Issues of Coal Mine Overburden and Mine Tailings. **S.K. Das**, Krishna Reddy, Lohitkumar, N and S. Jain. Springer Singapore, 2023, ISBN: 9819962935
2. Soft computing in Geotechnical Engineering, P Samui, **S. K. Das**, and T. G. Sitharam, VDM publications, ISBN: 978-3-639-31125-9
3. Design of rigid pavement using High Volume fly ash concrete", **S. K. Das**, and J. Mohanty, VDM publications, ISBN: 978-3-639-23626-2

Book Chapter

1. Evaluation of liquefaction potential of soil based on shear wave velocity using multi-gene genetic programming." Muduli P.K., **Das S.K., Chapter 12 in Handbook of Genetic Programming Applications,** A.H. Gandomi et al., (Eds.), Springer, New York, NY, (2015), ISBN: 978-3-319-20882-4 (Print) 978-3-319-20883-1 (Online), pp 309-344.
2. Artificial Neural Networks in Geotechnical Engineering: Modeling and Application Issues" **Chapter 10**. **S.K. Das**, ***Metaheuristics in Water, Geotechnical and Transport Engineering (2013),*** Editors. X. Yang, A.H. Gandomi, S. Talatahari, A.H. Alavi, ***Elsevier,*** *London, ISBN: 978-0-12-398296-4, Page 231-270.*
3. Site Characterization Model using Machine Learning (pp. 175-186), **Chapter 6**. **Sarat Das**, Pijush Samui, D.P. Kothari, (2011) - **Machine Tools: Design, Reliability and Safety,** Editor, Scott Anderson**, Nova Science Publishers, USA.**

4. The Biopolymer Stabilization of Fly Ash and Coal Mine Overburden for Erosion Resistance , **Chapter 11**, Mahasakti Mahamaya and Sarat Kumar Das, **Biopolymers, Structure, Peroformances And Applications** (2017), **Nova Science Publishers, New York**
5. Modeling the Axial Capacity of Bored Piles Using Multi-Objective Feature, Selection, Functional Network and Multivariate Adaptive Regression Spline, **CHAPTER 16** Ranajeet Mohanty, Shakti Suman, Sarat Kumar Das, **Handbook Of Neural Computation**, P. Samui, S.S. Roy, and V. E. Balas, (2017) Elsevier, Academic Press, London.
6. Prediction of Compressive Strength of Geopolymers Using Multi-objective Feature Selection, **Lasyamayee Garanayak, Sarat Kumar Das and Ranajeet Mohanty** *Big Data in Engineering Applications*, Springer, Singapore. (2018) **Editors:** Roy**, S.S.,** Samui**, P.,** Deo**, R.,** Ntalampiras**, S.**
7. Multi-Objective Optimization of Slope Stability Using Wedge Analysis and Genetic Algorithm, Sarat Kumar Das, Chapter 10. Handbook of Research on Predictive Modeling and Optimization Methods in Science and Engineering, IGI Global Publication, (2018). Editors: Dookie Kim, S.S.Roy, Tim Länsivaara, Ravinesh Deo and Pijush Samui.
8. Chapter 8 - Multi-objective optimum design of geosynthetic reinforced soil foundation using genetic algorithm. Manas Ranjan Das, Madhumita Mohanty and Sarat Kumar Das, Modeling in Geotechnical Engineering, Editors- Pijush Samui, Sunita Kumari, Vladimir Makarov and Pradeep Kurup. 2021. Pages 151-164.
9. Sulfate Resistant Mortar Using Coarse Fraction of Red Mud as Fine Aggregate. Anshumali Mishra, Bajaya K. Das, Shamshad Alam & Sarat Kumar Das, 2022, Advances in Sustainable Materials and Resilient Infrastructure, Chapter-18, 265–278.