Dr. Islavath Sreenivasa Rao Assistant Professor Grade I Department of Mining Engineering Indian Institute of Technology Kharagpur

Kharagpur, West Medinapur, West Bengal – 721302 Email id: <u>islavathsreenivas@mining.iitkgp.ac.in</u>

islavathsreenivas@gmail.com.ac.in

Mobile No: +91 9490591125, +91 9959411575; Office:03222-304826



Academic Qualifications:

Qualifications	University/Board	CGPA/%	Thesis	Rank	Period of Study
Ph.D	IIT (ISM) Dhanbad	-	STABILITY OF LONGWALL FACE VIS-À-VIS PERFORMANCE AND STRCUTURAL ANALYSIS OF POWERED SUPPORT	-	27 th March 2014 to 15 th February 2018
M.Tech	IIT Kharagpur	9.38 CGPA	STABILITY ANALYSIS OF VERTICAL SHAFT , DECLINE AND STOPE PILLARS USING NUMERICAL MODELLING TECHNIQUES	FIRST	2010-12
B.Tech	UCE, Kakatiya University, Telangana	82.73 %	DESIGN OF SAFE EXPLOSIVE CHARGE FOR OPENCAST COAL MINE	FIRST	2005-09
Intermediate	BIE, Andhra Pradesh	76.9 %	-	THIRD	2002-04
SSC	BSE, Andhra Pradesh	82 %	-	THIRD	2001-02

Professional Experience:

Organization	Designation	Period	
Indian Institute of Technology Kharagpur	Assistant Professor Grade I	31st January 2020 to till date	
Kakatiya University, Telangana	Assistant Professor	19th October 2013 to 30 th January 2020	
M/s. SCCL, Telangana	MGT/GME	15 th June 2012 to 18 th October 2013	
M/s. BALCO, Chhattisgarh	GET/Assistant Manager (Mines)	September 2009 to July 2010	

Area of Research:

- Underground Coal Mining
- Rock Mechanics and Numerical Modelling
- Slope Stability

Awards/ Rewards:

 Awarded SCCL Gold Medal for the University Topper in Mining Engineering for the academic year of 2008-2009.

- MEAI Abheraj Baldota Gold Medal (Young Mining Engineer) for the year 2019.
- Secured the GATE rank of ALL INDIA 14 in the year 2009.
- Holder of the Second Class Mines Manager Certificate of Competency under CMR 1957.

Subjects taught:

- a) University College of Engineering (Kakatiya University), Kothagudem
 Rock Mechanics, Mine Ground Control, Underground Coal Mining and Openpit Mining
- b) Indian Institute of Technology Kharagpur
 Ground Control, Rock Slope Engineering and Rescue and Disaster Management

Software proficiency:

- ANSYS
- GALENA
- PHASE 2
- BLASTWARE

Academic/Administrative Experiences at Kakatiya University:

- Head, Department of Mining Engineering, Kakatiya University from 09-07-2018 to 30-01-2020.
- Chairperson, Board of Studies in Mining Engineering, Kakatiya University from 26-05-2015 to 30-01-2020.
- In charge, Mining Engineering Department, UCE, Kothagudem from 24-10-2013 to 08-07-2018.
- In charge, Examination Branch, UCE, Kothagudem 14-03-2017 to 20-03-2019.
- Nodal Officer, III Cell, TEQIP II, UCE, Kothagudem September 2014 to July 2018.
- In charge Placement Officer, Mining Engineering Department, UCE, Kothagudem from October 2013 to 30-01-2020.

Publications:

a) International Journals

- 1) **Islavath S R**, Deb D and Kumar H. Numerical analysis of a longwall mining cycle and development of a composite longwall index. *International Journal of Rock Mechanics & Mining Sciences*. 2016; 89: 43-54. (SCI)
- 2) **Islavath S R**, Deb D and Kumar H. Life Cycle Analysis and Damage Prediction of a Longwall Powered Support using 3D Numerical Modelling Techniques. *Arabian Journal of Geosciences*. https://doi.org/10.1007s12517-019-4574-y. (SCI)
- 3) **Islavath S R**, Deb D. Stability Analysis of Underground Stope Pillars using Numerical Modelling techniques. *International Journal of Mining and Mineral Engineering*. 2018; 9(3): 198-213. (SCOPUS)
- 4) **Islavath S R**, Deb D and Kumar H. Development of Roof to Floor Convergence Index for Longwall Face using Combined Finite Element Modelling and Statistical Approach. *International Journal of Rock Mechanics & Mining Sciences*. 2020; 127(104221):1-11. (SCI)

b) National Journals

- 1) Deb D and **Islavath S R**. Time and Motion Study of Dumpers and Shovel Deployed at a Shallow Depth Mine. Journal of Mines and Metals Fuels. 2018;66(1): 1-7. (SCOPUS)
- 2) **Islavath S R** and Deb D. Support Design for the Underground Metal Mine using Numerical Modelling Techniques. *Journal of Mines and Metals Fuels.* 2018;66(10):764-769. (SCOPUS)

- 3) **Islavath S R**. Stability of Continuous Miner Workings using Numerical Modelling Approach. *Journal of Mines and Metals Fuels*. 2019;67(8):360-365. (SCOPUS)
- 4) **Islavath S R**, Deb D and Bhrati S. Design of Lining for a Mine Shaft and Decline using Numerical Modelling Techniques. ISRM (India) journal. 2015; 4(1):26-34.
- 5) **Islavath S R**. Stability Analysis of Underground Coal Mine Pillar using Numerical Modelling Techniques. *The Indian Mining Engineering Journal*. 2018; 57(2): 24-28.
- 6) **Islavath S R** and Deb D. Prediction of Subsidence for the Chromite Mine using Numerical Modelling Techniques. *Journal of Mines and Metals Fuels.* 2019;67(12):527-531. (SCOPUS).
- 7) **Islavath S R**. Design of Safe Charge for Opencast Coal Mine using Regression Analysis. *Journal of Mines and Metals Fuels.* (SCOPUS) (Accepted).

c) Conferences/Workshop:

- 1. Bharti S, **Islavath S R** and Modi JK. Tracer gas application in mine ventilation system. *Proc of Nat. Conf. CMMI 2015 conducted by Govt. Engg. College, Keonjhar, Orissa, India*. 139-150.
- 2. **Islavath S R**, Deb D and Kumar H. Interaction between Shield and Surrounding Rock Strata using Numerical Modeling Techniques. *Proc of Int. Conf. INDO ROCK 2016 conducted by IIT Bombay, India*. 2016: 788-797.
- 3. **Islavath S R**, Deb D and Kumar H. Study of mega longwall face using three dimensional numerical modeling techniques. *Proc of Int. Conf. DEEP16 conducted by IIT Kharagpur, India*. 2016; 150 (1-9).
- 4. **Islavath S R**, Deb D and Kumar H. Three dimensional numerical modeling assisted longwall strata control design. *Proc of Workshop on Introduction of high capacity longwall at adriyala conducted by SCCL, Hyderabad, Telangana, India*. 2016; 173-179.
- 5. Nageswararao K, Budi G and **Islavath S R**. Stability analysis of gate roads and barrier pillar in longwall workings by using numerical modeling techniques. Proc of Recent Challenges in Mining Industry (RCMI 2018) organized by CIMFR Dhanbad. 2018; 209 215.

Consultancy Projects:

- 1. Vetting of technical report for exclusion of few coal seams in the geological block while preparing Mining plan and Mine closure plan of Kondapuram UG mine, Manuguru area, SCCL. (Completed)
- 2. Vetting of technical report for exclusion of few coal seams in the geological block while preparing Mining plan and Mine closure plan of KTK 5 incline, Bhupalpalli area, SCCL. (Completed)
- 3. Scientific study for slope stability of dump yard and highwall benches of Pit-I at KOCP II, Yellandu Area, SCCL. (Completed)
- 4. Scientific study for blast vibrations and air over pressure at nearby villages of JVR OC-I, Sattupalli, Kothagudem Area, SCCL. (Completed)
- 5. Scientific study for preparation of scheme of blasting design in opencast mine MNG OCP of Manuguru Area, SCCL. (Completed).
- 6. Scientific study for stability and monitoring of highwall and dumps at Manuguru OCP, Manuguru Area, SCCL. (Completed)
- 7. Scientific study for stability and monitoring of highwall and dumps at JK-5 OCP, Yellandu Area, SCCL. (Completed)

- 8. Scientific study to work within 500 m (danger zone) from permanent structures (i.e, dwellings, power lines, roads etc) not belonging to the Owner at MOCP, RG-I area in view of proposed extension of quarry, SCCL. (Completed)
- Scientific study for depillaring of MM-9A panel of Queen seam (bottom section) at No. 21 incline, Yellandu area, SCCL. (Completed)
- 10. Scientific study for method of extraction of 1 seam and 2 seam of SRP 3 and 3A incline of SRP area, SCCL. (Completed)
- 11. Scientific study for stability and monitoring of highwall and dumps at Tadicherla I opencast coal mine, TSGENCO. (Completed)
- 12. Blasting study at K. Sena Reddy building stone and metal mine near to Huzurabad, Karimnagar (district), Telangana. (Completed)
- 13. Blasting study at Sri Nagendra Swamy building stone and metal mine near to Huzurabad, Karimnagar (district), Telangana. (Completed)

Member of Board of Studies:

- Jawaharlal Nehru Technological University, Kakinada, Andhra Pradesh
- Malla Reddy Engineering College (Autonomous), Hyderabad, Telangana
- Godavari Institute of Engineering and Technology (Autonomous), Kakinada, Andhra Pradesh

Members of Professional Bodies:

- Mining Engineers Association of India(MEAI) Membership No: 4479 SING
- International Society of Rock Mechanics (ISRM) 10 yrs membership
- Society of Geoscientists and allied Technologists (SGAT) Membership No: 800
- International association of Engineers (IAENG) Membership No: 138673
- Institution of Engineers India (IEI) Membership No: M-1686776

My previous selections:

- Graduate Engineer Trainee (Mining) in the Vedanta Resources Plc in 2009.
- Executive Trainee (Mining) in the Coal India Limited in 2011.
- Graduate Engineer Trainee (Mining) in the Uranium Corporation of India Limited in 2011.
- Graduate Engineer Trainee (Mining) in Neyveli Lignite Corporation Limited in 2012.
- Mining Graduate Trainee (Mining) in the Singareni Collieries Company Limted in 2012.
- Assistant Professor in the Kakatiya University, Telangana in 2013.

(Dr. Islavath Sreenivasa Rao)