Vishnu Kant Verma, Ph.D. Scholar, IIT Bombay

Specialization: Applied Geophysics

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Examination	University	Institute	Year	CPI/%
PhD (Course Work)	IIT Bombay	IIT Bombay	Ongoing	9.82
Post Graduation	IIT Bombay	IIT Bombay	2019	7.99
Graduation	University of Delhi	Rajdhani College	2017	85.83
Intermediate/+2	CBSE	Kendriya Vidyalaya Dhanpuri	2013	85.00
Matriculation	CBSE	Kendriya Vidyalaya Dhanpuri	2011	8.80

SCHOLASTIC ACHIEVEMENTS	
Mar, 2020	• Secured **AIR-05** in **GATE 2020**, Geology and Geophysics
Mar, 2019	• Secured **92.21 Percentile** in **GATE 2019**, Geology and Geophysics
Mar, 2017	• Secured **97.63 percentile** score in Joint Admission Test for M.Sc. **(IIT-JAM)** Physics
June, 2017	• Secured **AlR-10** in **B**anaras **H**indu **U**niversity (BHU), PG Entrance Test

RESEARCH EXPERIENCE	
PhD(Ongoing)	Developed an In-House MATLAB based programme for **joint inversion** of **Gravity - Magnetic** and **Gravity – DC Resistivity** data, *Guide: Dr. Anand Singh,IIT Bombay*
Dissertation, *Spring, 2019*	**Unstructured grid** based **forward and inverse modeling** for **different geophysical data** to improve subsurface structure, *Guide: Dr. Anand Singh,IIT Bombay*
Internship, *Spring, 2018*	Locating Earthquakes & it's Magnitude determination, **Moment tensor inversion**, SQL database preparation, **Webserver establishment** powered by **LAMP** (Linux, Apache, MySQL, PHP), *Guide: Ketan Singha Roy, Geophysicist, **I**nstitute of **S**eismological **R**esearch, Gandhinagar*
INDUSTRIAL TRAINING, *May, 2018*	Exposed to survey designing & quality check during **data acquisition** in Field Party GP-03, ONGC, Mehsana Gujrat, Learnt basics of **Seismic data processing** in SPIC ONGC Panvel, Mumbai
FIELD WORK, *Dec, 2017*	Lithological and Structural Field Work, Ambaji, Gujarat

POSITION OF RESPONSIBILITIES	
April, 2018 – Mar, 2019	• President, Society of Exploration Geophysicist **(SEG)** Student Chapter, IIT Bombay
April, 2018 – Mar, 2019	• Web Secy, Earth Science Association, Department of Earth Sciences, IIT Bombay
July-Sept 2017	• Assistant Manager, Web & Design Team, Department of Earth Sciences, IIT Bombay

TECHNICAL SKILLS	
Programmings	MATLAB, Fortran, C++, php, Python, Bash Shell Scripting, (Machine Learning)
Softwares	HTML & CSS, Apache, MySQL, Inkscape, CorelDraw, GIMP, LATEX

Publications
Verma, V. K., Singh, A.: Appraisal of Geologic Model obtained using Fuzzy Constrained Joint Inversion: Test results on Large-Scale Direct Current Resistivity and Gravity data, Geophysical Journal International, (Submitted).
Verma, V. K., Singh, A., and Barman,D.: Machine Learning assisted Geophysical Joint Inversion, *American Geophysical Union Fall Meeting 2021*, 13-17 December 2021.
Verma, V. K. and Singh, A.: Unstructured grid-based Constrained Inversion of large scale DC and Gravity data, *Joint Scientific Assembly IAGA-IASPEI 2021*, 21-27 AUGUST 2021, IAGA21_2021_ABS_X8234
Verma, V. K. and Singh, A.: Triangular grid-based common inversion framework for different geophysical data to improve subsurface imaging, *EGU General Assembly 2021*, 19–30 Apr 2021, EGU21-13994.
Verma, V. K., Singh, A., and Mohanty, W.K.: 3D Fuzzy Constrained Inversion of Gravity data – a Case Study from Chromite Mineralization, *57th Annual Convention on "Sustainable Geosciences & Blue Economy"*, 2-4th Feb 2021, *INDIAN GEOPHYSICAL UNION*
Verma, V. K. and Singh, A.: Geologic separation using fuzzy constrained resistivity tomography, *TechConnect 2019-20*, 3rd-5th January 2020, *IIT Bombay*.
Verma, V. K. and Singh, A.: Applications of Geophysical prospecting in Mineral Exploration, *TechConnect* 2019-20, 3rd-5th January 2020, *IIT Bombay.*

TEACHING
PMRF Teaching Deliverables: Numerical problems in Applied Geophysics (At the Department of Geophysics, Andhra University)
Teaching Assistantship IIT Bombay: GP 521 Electromagnetic Lab
Teaching Assistantship IIT Bombay: GS 543 Computer Programing for Geosciences
Teaching Assistantship IIT Bombay: GP 414 Electrical Methods