# **Mohit Ayani**

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### **EDUCATIONAL QUALIFIACTIONS**

Degree / Certificate	Year Of Passing	College/Institution	Percentage Marks/OGPA
Graduate student,	2015-ongoing	University Of Wyoming,	1 <sup>st</sup> semester ongoing
Department of geology & geophysics		USA	
Integrated Master of Science	2010-2015	Indian School Of Mines,	8.65/10
& Technology in Applied Geophysics		Dhanbad, Jharkhand, India	(ON AN ABSOLUTE SCALE
All India Senior School	2009	Vidya Mandir Sr. Sec. School	86.2%
Certificate Examination( 12 <sup>th</sup> Standard)		Kota, India	

Sr/ No.	Organisation and Duration	Project Title	Project Details
1	Oil & Natural Gas Corporation Ltd RCC, Vadodara (2 weeks	Processing of seismic data and interpretation	<ul> <li>Presentations were given on the interpretation techniques used for identifying the potential reservoirs zone and qualitative and quantitative assessment of reservoir was performed.</li> </ul>
	05/19/2014 to 05/30/2014)		<ul> <li>Gained a deep insight about different attributes which are applied to the seismic data to extract more information from it.</li> <li>Learnt about the basics of petroleum and structural geology required to extract information about geology from seismic data.</li> </ul>
2	Oil & Natural Gas Corporation Ltd SPIC, Mumbai (2 weeks 12/26/2013 to	Analysis of Seismic data and its processing	<ul> <li>Presentations were given on the processing sequence flow and theoretical classes were held in which each processing step like deconvolution, NMO correction, velocity analysis, migration etc. were elaborated in detail.</li> </ul>
	01/06/2014)		<ul> <li>Practical sessions were held in which processing was done using the "FOCUS" and "GEODEPTH" softwares on the workstations.</li> </ul>
3	Uranium Corporation of India Limited (UCIL), Jadugoda (12/08/2013 to	Excursion on various methods in Geophysical prospecting	• Involved application of various geophysical methods (Self Potential, resistivity methods, electromagnetic techniques, gravity and magnetics, ground penetrating radar etc.) in the study area to acquire the data.
	12/24/2013)		<ul> <li>Processing and interpretation of the acquired data was done subsequently.</li> </ul>
			<ul> <li>Also visited the well site, where the drilling and coring operations were carried out.</li> </ul>
4	OCEAN Innovation tournament,	PLUG-IN for PETREL on "Automated Well to Well	<ul> <li>Was given a developer license by Schlumberger to make the plugin for PETREL using Ocean API.</li> </ul>
	Schlumberger SIS, India (4 months	correlation"	<ul> <li>Developed the code and user interface for the plugin using C# and Ocean API.</li> </ul>
	06/04/2013 to 10/04/2013)		<ul> <li>Learnt about the use of PETREL interpretation software and Visual studio2010(C#, C++)</li> </ul>
5	Oil India Limited (OIL), Duliajan Assam. (2 weeks 12/20/2012 to	Seismic Data acquisition	<ul> <li>Gained insight about various types of shooting techniques employed in the industry for seismic reflection data acquisition and various types of instruments used in recording the data.</li> </ul>
	12/31/2012)		<ul> <li>Field trip was organised and were taken to Jorhat, Assam where 2D seismic data acquisition was carried out. Gained knowledge about the instruments involved in data acquisition.</li> </ul>

## RESEARCH PROJECTS

Sr/	Organisation and Duration	Project Title	Project Details
No. 1	CSIR - National Geophysical Research Institute, (NGRI) Under Dr. Kalachand	Application of Genetic Algorithm for travel time and constrained AVO inversion	<ul> <li>Acquired knowledge about amplitude versus offset (AVO) and its role as an important tool for hydrocarbon exploration particularly for gas reservoirs and gas hydrates.</li> </ul>
	Sain. 2months (05/03/13 to 07/03/13)		<ul> <li>Developed a binary coded scheme for genetic algorithm in MATLAB.</li> </ul>
			<ul> <li>The abstract for this work got selected to be presented at the 50th annual conference of Indian Geophysical Union (IGU), Hyderabad.</li> </ul>
			<ul><li>Link: - http://www.igu.in/50years/abstracts-2014.pdf</li></ul>
2	CSIR- National Institute of Oceanography (NIO), under Dr. Bishwajit Chakraborty.	Application of the unsupervised Artificial Neural Network (ANN) to understand the seafloor	<ul> <li>Learnt about the differences between the supervised and unsupervised artificial neural networks (ANN) and their roles in pattern recognition and data segmentation and classification.</li> </ul>
	2 months (05/01/12 to 06/30/12)		<ul> <li>Understood the Kohonen Self Organised Map (SOM) and its role in the bathymetry and backscatter data segmentation.</li> </ul>
			<ul> <li>Wrote the code for the same in MATLAB &amp; applied to the bathymetry &amp; backscatter data.</li> </ul>
3	Voyage no 291 of Studying of methods for Dceanic Research Vessel bathymetry, backscatter and Sagar Kanya organized magnetic data acquisition	<ul> <li>Learnt about the various marine data recording instruments like multibeam sonar, side scan sonar, CTD &amp; magnetometer.</li> </ul>	
	by National Centre for Atlantic and Oceanic	lantic and Oceanic	<ul> <li>Acquired the soil samples using gravity coring at different locations for the study of their texture and composition.</li> </ul>
	Research (NCAOR).  3 weeks		<ul> <li>Gave a presentation on the side scan sonar at the end of the training.</li> </ul>
	(12/7/11 to 12/28/11)		

#### **ACHIEVEMENTS**

- Gold medallist of the 2015 batch of Integrated MSc. Tech Applied Geophysics.
- Won the first prize in the case study organized by CAIRN INDIA during the AAPG annual meet 2014.
- Developed the PLUGIN for PETREL and was amongst the top 25 teams reaching the finals of the competition organized by Schlumberger Company.
- Selected as the summer research fellow (SRF) for the year 2012 by the Indian Academy of Sciences (IAS) for the summer intern at National Institute of Oceanography, Goa and recipient of the travel and accommodation grants.
- Qualified Indian Institute of Technology Joint Entrance Examination (IIT-JEE) in 2010, with rank in top 1%.

#### **AWARDS & SCHOLARSHIPS**

- Recipient of the Prof Jagdeo Singh & Dr S. Balakrishna memorial grant- 2013 award at the 50th annual convention of the Indian Geophysical Union (IGU
- Received the cash price of INR 3500/ from the Director, ISM for the performance in the Monsoon and Winter semester examination for 4 consecutive years (year 2011-12, year 2012-13, year 2013-14 & year 2014-15).
- Recipient of DST INSPIRE Scholarship for the past five years by the Department of Science and Technology, Government of India.
- Recipient of the stipend of twenty thousand rupees by the Indian Academy of Sciences (IAS) for the year 2012.

#### **EXTRA-CURICULLAR & NON- ACADEMIC ACTIVITIES**

- President, AAPG University of Wyoming student chapter for the session 2015-16.
- Secretary, EAGE Indian School of Mines Dhanbad Student Chapter for the session 2014-15.
- Joint secretary, AAPG Indian School Of Mines Dhanbad Student Chapter for the session 2013-14.
- Volunteered for the Youth Empowerment & Skills (YES+) Workshop organized by the Art of Living foundation in the year 2012.
- Organized a blood donation camp at National Institute of Oceanography, Goa on 16th June 2012.

#### **COMPUTER SKILLS**

- Successfully built a PLUG-IN on "Automatic Well to Well Correlation" for PETREL using Ocean API
- Successfully written code in MATLAB for carrying out travel time & AVO inversion using Genetic algorithm.
- Successfully written a code in MATLAB for the Self Organized Map (SOM) used for the classification of the sea floor.
- Softwares: MATLAB, MS-Office, Opendtect, Seismic Unix (basics) and Seislab.

#### **HOBBIES**

• Listening music, jogging & exercising in gym.