

HEMA SANDEEP SHARMA

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Educational Qualifications

- **PhD, Department of Geology & Geophysics, University of Wyoming, Laramie, WY**
Expected Graduation Date: May 2017; Research Topic: 'Pre-stack anisotropic waveform inversion for characterizing unconventional reservoirs'. For my research I would be studying multi-azimuthal 3D seismic data and would be inverting the azimuth gathers into elastic property volumes. This would help in defining the anisotropic nature of reservoir and in estimating the minimum stress direction which would further help in hydraulic fracturing and in designing new horizontal wells for maximum exploitation of the reservoir. ; Advisor: Dr. Subhashis Mallick.
- **M.Tech. in Applied Geophysics, IIT, Roorkee, India, 2004–2007, GPA: 8.58/10**
- **Bachelor of Science, Kumaun University, Nainital, Uttarakhand, India, 2001–2004, Avg.: 74.2%**

Research Experience

Master's Thesis: 'Modeling Seismic Response of Thin Beds'. This involved generation and analysis of P and S-wave synthetic seismograms at several offsets for different scenarios when we have below tuning bed thicknesses. Advisors: Dr. V. N. Singh and Dr. A. Sinval.

Summer Internships:

- Electrical resistivity survey in NGRI, Hyderabad, India (16th May to 18th June 2005) for groundwater research in an area with limited water resources.
- Seismic interpretation of regional surfaces & faults in a shallow water block, Reliance Industries Limited, Mumbai, India (15th May to 15th June 2006). These surfaces and faults were then used to build a geological framework.

Professional Experience

- **Teaching Assistant** of Dr. Erin Aubrey Campbell-Stone for Physical Geology Laboratory in Department of Geology & Geophysics, University of Wyoming
- **Senior Development Geophysicist**, Reliance Industries Limited (E&P), Mumbai, India, July' 2007 -July' 2014, having following work experience:
 - Wavelet estimation, well to seismic tie and synthetic seismogram generation.
 - Seismic data interpretation and reservoir characterization for deep-water reservoirs.
 - Velocity modeling, seismic inversion, seismic attribute and AVO analysis.
 - Deterministic and probabilistic volumetric estimation for both pre-drill prospects and post-drill discoveries.
 - Subsurface risk and uncertainty identification and mitigation.
 - Proposed appraisal and/or development wells in deep water clastic reservoirs.
 - Carried out commerciality evaluation of discoveries and preparation of Commerciality and Development plans.
 - Took part in various trainings and workshops related to reservoir characterization.

Membership Information : SEG member (since 2005)
Computer Skills : Linux and UNIX
Software Proficiency : Landmark Suite, Hampson-Russell, Paradigm Interpretation software (Stratimagic), MMRA, Jason Workbench
Programming Skills : C++, Matlab