PRIYANKA DUTTA

EDUCATION

PhD (Geophysics)	**2012-present**	**Stanford Rock Physics & Borehole Geophysics Project (SRB) (GPA: 4/4)**
Integrated M.Sc., Exploration Geophysics	**2003-2008**	**Indian Institute of Technology (IIT), Kharagpur (GPA: 8.43/10)**

WORK EXPERIENCE

***Research Intern,* Shell International Exploration & Production Inc.**, Houston (June'15-Sept'15)

- Tested and ratified the feasibility of replacing conventional large source 4D seismic repeats with smaller sources, in terms of similarities/differences between the interpreted rock/fluid changes in a producing reservoir (offshore Brazil data). Also, successfully refined and applied quick, low-cost methods for 4D quantitative interpretation (QI) in place of full inversions.

***Applied Geophysics Intern,* Shell Exploration & Production Company**, Houston (June'15-Sept'15)

- Performed 4D seismic analysis in deep-water GOM to evaluate reservoir compartmentalization and successfully assessed need for an additional production well. Integrated insights from geology, geophysics, petrophysics and reservoir engineering to understand and model reservoir changes underlying 4D effects.

***Geophysics Intern (Research),* BP America**, Houston (June'14-Sept'14)

- Built robust rock physics model for QI of shale gas reservoirs and seismic sensitivity analysis. Effectively integrated some of BP's vast internal database into the project.

***Petrophysicist, Schlumberger* Asia Services Limited,** DCS India (Aug'08- May'12)

- Involved in processing, interpretation and real time support of wireline (WL) and logging-while-drilling (LWD) data for national and international clients.
- Experienced in open-hole petrophysical products, particularly of wireline sonic data (sonic fracture and mobility analysis, acoustic anisotropy and radial profiling). Involved in detailed formation evaluation of horizontal wells (ELAN & resistivity modeling) in the biggest consulting project by DCS, India.

ACADEMIC PROJECTS

- ***Ongoing:*** Correlations between elastic and electrical properties in isotropic composites. Also understanding the role of statistical learning methods in global sensitivity analyses of common geophysical models.
- ***SRB Annual Meets 2014-15*, Stanford University:** Understanding elastic properties of rocks with micro-anisotropy. Demonstrated that sub-measurement scale anisotropy has big impacts on both macro-scale isotropic and anisotropic elastic properties.
- ***SRB Annual Meets 2013-14*, Stanford University:** Comparison of FEM computed elastic moduli of digital rocks with ellipsoidal inclusions with results from effective medium models (SCA, DEM, Mori-Tanaka). Research plan for studying effects of rock composition and structure on elastic anisotropy.
- ***Master's Thesis*, 2008, IIT Kharagpur,** India: 'Determination of Crustal Structure of the Western Ghats through Surface Wave Dispersion'. Inversion using Genetic Algorithms to obtain crustal structure.

SELECTED ACHIEVEMENTS

- **SEG Expanded Abstracts:** 2016: Effective Elastic Properties of Composites with Micro-Anisotropy. 2015: Effect of microscale anisotropy on solid substitution in macroscale isotropic composites.
- **DCS President's Award, Schlumberger, 2011:** Team award for the success of the new Data Services Hub, Mumbai; **DCS Excellence in Action, Schlumberger, Q1, 2010** & **MEA Reservoir Symposium 2010:** First Commercial Application of WebMI for Better Resistivity Modelling in Horizontal Wells.
- **INM Reservoir Symposium, 2011 & Society of Petroleum Geophysicists (SPG) Conference, 2012**: 'Improved Quicklook Structural Dip Computation and Resistivity Anisotropy Using Multi Array Triaxial Induction Measurement, Case Studies from Deepwater India'.

EXTRACURRICULAR ACTIVITIES

- Governor, Technology Literary Society (TLS), IIT Kharagpur.
- Hall Color, SN-IG Hall, IIT Kharagpur (dramatics, fine-arts and literary activities).
- Volunteer, Red Cross Society, National Service Scheme (2003-2005).

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