

## **SALMA RAFI**

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### **FIELD OF SPECIALIZATION**

- **Petroleum Geology**
- **Sedimentology**

### **EXPERIENCE**

- **Lecturer B.P.S 18**  
Since September 2006 to date  
Department of Geology, University of Karachi
- **Full time Cooperative Teacher**  
July 2006 to September 2006) Department of Geology, University of Karachi
- **Cooperative Lecturer**  
February 2005 to May 2005, Department of Geology, DJ Sindh Govt. Science College Karachi
- **Research Fellow**  
April 2004 to June 2004, Exploration Department, Pakistan Petroleum Ltd. Karachi
- **Internship**  
February 2004 to April 2004, Pakistan Petroleum Ltd. Karachi

### **EDUCATION**

- **Ph.D.** (2011) Department of Geology, University of Karachi.
- **M.Phil.** (2007 converted to Ph.D.) Department of Geology, University of Karachi.
- **M.Sc.** (Geology), 2003, Department of Geology, University of Karachi.
- **B.Sc.** (Hons.) Geology, 2002, Department of Geology, University of Karachi.
- **H.S.C.** (Science) 1999, Board of Intermediate Education, Karachi.
- **S.S.C.** (Science) 1997, Board of Secondary Education, Karachi.

### **RESEARCH PROJECTS DEVELOPMENT**

- Reservoir Lab, Weatherford Oil & Tools, SEM, XRD, AAS, Isotopes and Petrographic studies of Sui Main Limestone”, 2011.
- Higher Education Commission (HEC), “Petrography of Sui Main Lime stone”, 2009.
- Pakistan Institute of Nuclear Science & Technology (PINSTECH), Isotope Application Division;  $\delta_{13}\text{C}$  and  $\delta_{18}\text{O}$  analysis of Sui Main Limestone, 2010.
- Dean Faculty of Science, University of Karachi, “Scan Electron Microscopy & Element Detection Service (SEM & EDS) of Sui Main Limestone”, 2010.
- Pakistan Petroleum Ltd.; “Reservoir properties and petrophysical evaluation of Sui Main Limestone”, 2007.
- PCSIR-Ministry of Science and Technology; “X-Ray Diffraction Analysis and Atomic Absorption Spectrometry of Sui Main Limestone”, 2010.

#### **RESEARCH REPORT PREPARATION AND SUBMISSION**

- Compilation of Ph.D. research work and submitted to Board of Advance Studies and Research (BASR) University of Karachi, 2011.
- “Scan Electron Microscopy & Element Detection Service (SEM & EDS) of Sui Main Limestone” submitted to Dean Faculty of Science, University of Karachi, 2011.
- Compilation of M.Phil. research work and submitted to Board of Advance Studies and Research (BASR) University of Karachi and converted to Ph.D., 2007.
- “Electrofacies Analysis of Sui Main Limestone”, Submitted to Pakistan Petroleum Ltd, 2006.

#### **RESEARCH PAPER PUBLICATIONS & CONFERENCE PRESENTATIONS**

- “Porosity distribution in Sui Main Limestone- An estimation based on electric well log analysis and petrographic studies.” Poster Presentation, 10-11 November 2010 SPE-PAPG Annual Technical Conference, Serena Hotel, Islamabad.
- “Foraminiferal Biofacies and Depositional environment of Sui Main Limestone, Middle Indus Basin Pakistan”. 2009, Proceedings of SPE-PAPG Annual Technical Conference, Islamabad.
- “Basin architecture of Karachi embayment”. 2004, Proceedings of SPE-PAPG Annual Technical Conference, Islamabad.

#### **GEOLOGICAL FIELD WORK SUPERVISION**

- Geological mapping and report writing of Sona Pass Area, Karach, 10 days field work of B.S. and M.Sc. classes.
- One day field visit of B.Sc. (Hons.) and B.S. classes to.
  - Mulri Hills, Karachi
  - Manghopir area, Karachi
  - Sona Pass area, Karachi
- Well site filed visit of Tando Jam well-I of M. Sc. class.

#### **RESEARCH PROJECT SUPERVISION**

- “Petrographic Investigation of Gaj limestone and its implications to porosity evaluation”. Research work of BS fourth year student for SPE-PAPG Annual Technical Conference 2010 Student Paper Contest. Islamabad.
- “Porosity evaluation and reservoir mapping through well logs and seismic analysis.” Research work of BS fourth year student for SPE-PAPG Annual Technical Conference 2010 Student Paper Contest. Islamabad.
- “Geological studies and Mapping of Sona Pass area, Karachi” research field work as part of M.Sc. degree course no. Geol: 604, Group 2009.
- “Surface Geochemical Exploration Technique”, Methodologies of Hydrocarbon exploration, lab assignment of B.S. degree course no. Geol 607, Group 2010.
- “Carbonate reservoir of Pakistan; evaluation, occurrence and analysis”, Petroleum geology literature review as part of B.S. degree course no. Geol 505, Group 2009.
- “Siliciclastic reservoir of Pakistan; evaluation, occurrence and analysis”, Petroleum geology literature review as part of B.S. degree course no. Geol 502, Group 2008.

#### **ACADEMIC ACHIEVEMENTS**

- Best Student Paper Award in “Student Paper Contest” SPE-PAPG Annual Technical Conference, 2004, Islamabad.
- Research scholarship Award, awarded by Pakistan Association of Petroleum Geoscientists for the year 2004-2005.
- Research scholarships awarded by University of Karachi 2005 and 2006.

#### **GEOLOGICAL FIELD WORK**

- Geological field work at Hazara nappe and thrust zone, Haripur area.
- Geological field work at Ranikot fort, district Dadu, Sindh.
- Geological field work, mapping and report writing of Lal Bakhar Area, Karachi.
- Geological field work at the Salt Range of Pakistan and Upper Indus Basin/Potwar Region.
- Geological studies of Mulri Hills, Karachi.
- Field studies of the Gadani Melanges.
- Geological studies of Manghopir Area.
- **Wellsite & Drilling** Wellsite visit of Tandojam well-1, Badin Block, Sindh.
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#### **SHORT COURSES, TRAININGS & WORKSHOPS**

- “Coring and Core Descriptions”, Three days workshop, Department of Geology, University of Karachi. 20<sup>th</sup> to 22<sup>nd</sup> June, 2011.
- “Application of modern geochemical methods in petroleum system appraisal to reduce risk and cost”. One day course, Carlton Hotel, Karachi, 21<sup>st</sup> July 2010,
- Coal Bed Methane, One day Symposium, Sindh University, Jamshoro, February 2010.
- “Well Site Operations”. Certificate course, Department of Geology, University of Karachi, February 2009,
- “Staff Development Training Program”, Human Resources Center, University of Karachi, 7<sup>th</sup> May to 30<sup>th</sup> May 2007.
- “ISO Quality Management System”, two days course, Department of Geology, University of Karachi, 8-9 October 2001.

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#### CONFERENCES, SEMINARS & SYMPOSIUM

- SPE-PAPG Annual Technical Conference 2010, Serena Hotel 10-11 November 2010, Islamabad.
- “Coal Bed Methane prospects of Sindh-A venture of Opportunities and growth” 13<sup>th</sup> February 2010, Sindh University, Jamshoro.
- SPE-PAPG Annual Technical Conference 2009, Serena Hotel 17-18 November 2009, Islamabad.
- Petroleum Geology Symposium, August 30–September 01 2008, Peshawar University, Baragali Summer Campus.
- “Alternative Energy Conference”, Federal Urdu University for Science and Technology.
- SPE-PAPG Annual Technical Conference 2004, Serena Hotel, 7-9 October 2004, Islamabad.

#### ACADEMIC PROJECTS

- Geological field work and mapping of Lal Bakhar Area, Karachi.
- “Waste water treatment at National Refinery Limited”, Environmental Geology project, Course no. Geol: 653.
- “Impacts of water tankers on roads” for Environmental Geology Project Course no. Geol: 653.
- “Geochemistry and sedimentology of contaminated marine sediment, a case study of Tasman Spirit” Arabian sea Geology project Course no. Geol: 684.
- “Oligocene Basins of Pakistan” Basin Analysis project, Course no. Geol: 646.

#### AFFILIATION & MEMBERSHIPS

- Active Member of American Association of Petroleum Geologists (AAPG)
- Active Member of Pakistan Association of Petroleum Geoscientists (PAPG)
- Active Member of Karachi University Geological Alumni Association (KUGGA)

#### CO-CURRICULAR ACTIVITIES

- **Founder and Faculty advisor** of an International affiliated organization “American Association of Petroleum Geologists (AAPG) University of Karachi chapter”.
- **Founder and Coordinator** of “Pakistan Association of Petroleum Geoscientists (PAPG) University of Karachi Chapter”.
- **Coordinator** of “Karachi University Geology Alumni Association (KUGAA)”.
- **Established Career Counseling House** at Department of Geology University of Karachi in association with KUGAA and guide and counsel the students for their career development.
- **Member of Geobulletin Board of Advisors**, magazine AAPG-PAPG UoK Students Chapter.

#### EVENT ORGANIZER

- Efforts to develop Liaison between Academia and Petroleum Industry.
- **Technical Seminar Series:** industry professionals delivered state of the art knowledge and share their experience.
- **Career Counseling Program:** industry renowned professionals guide students to plan their career as a geoscientist.