BIO-DATA

NAME: **ATUL KUMAR PATIDAR**

DESIGNATION: Junior Research Fellow (JRF)

DATE OF BIRTH: 20th May 1981

INSTITUTION: Faculty of Science,
Department of Geology,
The M. S. University of Baroda,
Vadodara - 390 002, Gujarat, INDIA
Email: **atul_patidar@rediffmail.com**
Website: **www.freewebs.com/atulpatidar**
Contact no: +91 9924924456

SPECIALISATION:

- Data Collection, Processing and Interpretation of Ground Penetrating Radar (GPR) – a modern Geophysical technique
- 3D modeling and visualization of Shallow Subsurface with GPR data
- Neotectonics
- Paleoseismology

ACADEMIC QUALIFICATIONS:

- Ph. D. – Ongoing since January 2004
  The theme of doctoral research is "**Neotectonic studies in southern mainland Kachchh using Ground Penetrating Radar (GPR), with special reference to Katrol Hill Fault**" from Department of Geology, The M. S. University of Baroda, Vadodara.

- Master of Science (M. Sc.) - May 2003
  Geology with distinction **(75.67%)**
  Devi Ahilya Vishwavidyalaya (Holkar Science College), Indore (M. P.)

- Bachelor of Science (B. Sc.) - June 2001
  (Physics, Mathematics, Geology) with First division **(61.27%)**
  Devi Ahilya Vishwavidyalaya (Holkar Science College), Indore (M. P.)

- Higher Secondary Certificate Exam – 1998, Second division **(59.33%)**
  Shri Jai Govind Gopinath H. S. School, Mhow (M. P.)

- High School Certificate Exam – 1996, First division **(67.2%)**
  Shri Parasram Puriya Agrawal H. S. School, Indore (M. P.)

CURRENT RESEARCH ACTIVITIES:

Presently I am working as a Junior Research Fellow in a Department of Science and Technology (DST) sponsored Research Project on **"Reconstruction of Quaternary tectonics and Delineation of subsurface faults in Gujarat region, using GPR"** under Prof. L. S. Chamyal. I am simultaneously working for my Ph.D under the supervision of Dr. D. M. Maurya.

RESEARCH EXPERIENCE:

During my doctoral studies I have developed the expertise in Ground Penetrating Radar (GPR) technique, an emerging Geophysical technique to visualize the 3D architecture of shallow subsurface buried objects, faults and earthquake induced liquefaction features. The principals of GPR technique are as similar as Seismic technique. I have used various methods of GPR data collection in the tectonically most sensitive parts of western India. I have command on various Geophysical softwares used for data collection, processing and interpretation. I have been used 3D GPR data to interpret the internal architecture of tectonically sensitive areas and most of my research findings have been published in reputed international and national journals. These findings are related to GPR based neotectonic and paleoseismological studies in western India, Gujarat. Also the morphology and nature of liquefaction features that took place during 2001 Bhuj earthquake has been studied using GPR and the results are published in Journal of Applied Geophysics (Elsevier Publications). Recently I have attended and present my research paper in **11th International conference on GPR held at The Ohio State University, Columbus, USA, from 19-22nd June 2006.** Department of Science and Technology (DST) and Council of Scientific and Industrial Research (CSIR) have sponsored me to attend this conference.

I am competent to operate the SIR-20 GPR system manufactured by Geophysical survey system Inc. I have also used the bistatic Multi low-frequency (MLF) antennas to carry out the GPR survey in difficult terrains. I have command on various Geophysical softwares used for GPR data collection, processing and interpretation like RADAN.

COMPUTER PROFICIENCY:

Geophysical Software's like RADAN (3D QuickDraw and Interactive^{3D} Module for 3D modeling of Shallow subsurface), GPR workbench, Slicer Dicer
GIS software's like Arc Info, Auto CAD Map
Graphic Software's like ENVI, Surfer, Global Mapper, Oriana, CorelDraw

AWARDS AND RECOGNITIONS RECIEVED:

Best student award and First position in the order of merit in M.Sc. (Geology) in Holkar Science College, Devi Ahilya Vishwavidyalaya, Indore, M. P.

Second prize in oral presentation at the "**Young Scientist Presentation**" during the 17th GMM and 6th PAC meeting of DST (ESS) held at IIT Bombay, Mumbai, on 14th November, 2005.

Partial funding Provided by Department of Science and Technology (**DST**) under the scheme of **"Travel support for participation in International conferences**" to attend the 11th International conference on Ground Penetrating Radar (GPR) held at **The Ohio State University, Columbus, USA, from 19-22nd June 2006.**

Partial funding provided by Council of Scientific & Industrial Research (**CSIR**) under the scheme of "**Foreign Travel Grant for Young Scientists/Research Scholars"** to attend the 11th International conference on Ground Penetrating Radar (GPR) held at **The Ohio State University, Columbus, USA, from 19-22nd June 2006.**

COURSES/WORKSHOPS/CONFERENCES ATTENDED:

1. Regional Workshop on DST programme on the Science of Shallow Subsurface held at Physical Research Laboratory (PRL) on 29th December, 2003.

2. DST Sponsored Contact Course on Experimental Structural Geology, held at the Department of Geology Banaras Hindu University, Varanasi from 3-12th December, 2004.

3. DST Sponsored **Second Module of SERC** School on Crustal Deformation & Tectonic Geomorphology, held at the CSIR Centre for Mathematical Modelling and Computer Simulation (C-MMACS), Bangalore, from 13-24th February 2006.

4. 11th International Conference on Ground Penetrating Radar (GPR) held at **The Ohio State University, Columbus, USA, from 19-22nd June 2006.**

LIST OF PUBLICATIONS:

International Publications:

1. Maurya, D.M., Goyal, B., **Patidar, A.K.**, Mulchandani, N., Thakkar, M.G. and Chamyal, L.S. (2006). Ground Penetrating Radar imaging of two large sand blow craters related to the 2001 Bhuj earthquake, Kachchh, Western India. **Journal of Applied Geophysics, (Elsevier),** 60 (2), 142-152.

2. **A.K. Patidar.,** D.M. Maurya., M.G. Thakkar and L.S. Chamyal. Fluvial geomorphology and neotectonic activity based on field and GPR data, Katrol hill range, Kachchh, western India. **Quaternary International, (Elsevier)**, 159, 74-92.

3. N. Mulchandani., **A.K. Patidar.,** S.I. Vaid and D.M. Maurya. Late Cenozoic geomorphic evolution in response to inversion tectonics: Evidence from field and GPR studies in Kim drainage basin, Western India. **Journal of Asian Earth Sciences,** Elsevier, (In press)

4. D.M. Maurya., M.G. Thakkar., **A.K. Patidar.,** S. Bhandari., B. Goyal and L.S. Chamyal. Late Quaternary Geomorphic evolution of the costal zone of kachchh, Western India. **Journal of Coastal Research,** (Revised).

5. **A.K. Patidar.,** D.M. Maurya., L.S. Chamyal. (2006). Shallow Subsurface Characterization of Active Faults using Ground Penetrating Radar: Example from Katrol Hill Fault (KHF), Kachchh, Western India. **11th International Conference on Ground Penetrating Radar, 2006.**

6. N.P. Bhatt., **A.K. Patidar.,** D.M. Maurya and L.S. Chamyal. (2006). Delineation of Three Shallow Subsurface Faults using GPR in South Saurashtra, Western India. **11th International Conference on Ground Penetrating Radar, 2006.**

National Publications:

7. Maurya, D.M., **Patidar, A.K.,** Mulchandani, N., Goyal, B., Thakkar, M.G., Bhandari, S., Vaid, S.I, Bhatt, N.P. and Chamyal, L.S. (2005). Need for initiating Ground Penetrating Radar (GPR) studies along Active faults in India: An example from Kachchh. **Current Science,** 88, 231-240.

8. Alpa Sridhar and **Atul Patidar**. (2005). Ground Penetrating Radar studies of a point-bar in the Mahi River Basin, Gujarat. **Current Science,** 89, 183-189.

9. M.G. Thakkar., B. Goyal., **A.K. Patidar.**, D.M. Maurya and L.S. Chamyal. (2006). Bed rock gorges in the central Mainland Kachchh: implications for landscape evolution. **Journal of Earth System Science,** 115 (2), 249-256.

Under Preparation:

10. Historic Surface rupture and Shallow Subsurface Neotectonic studies using Ground Penetrating Radar (GPR) along Katrol Hill Fault, Kachchh, western India.
A. K. Patidar., D. M. Maurya., M. G. Thakkar and L. S. Chamyal

11. Fundamentals of Ground Penetrating Radar (GPR) technique and its applications in Shallow Subsurface Geological studies: Examples from Gujarat, western India
L. S. Chamyal., **A. K. Patidar** and K. G. Gupta

12. Large liquefaction craters related to 2001 Bhuj earthquake: distinguishing the internal geometry of reactivated and non-reactivated craters.
M. G. Thakkar., Bhanu Goyal., **A. K. Patidar**., D. M. Maurya and L. S. Chamyal

PERSONAL DETAILS:

Father's Name:	Shri Lekhraj Patidar
Mother's Name:	Smt Nisha Patidar
Marital status	Single
Category:	OBC
Citizenship:	Indian
Passport No:	F6849911 with B1/B2 visa of USA up to 11/06/2016.

REFERENCES:

Prof. L. S. Chamyal
Faculty of Science
Department of Geology
The M. S. University of Baroda
Vadodara - 390 002, India
Email: lschamyal@yahoo.com

Dr. D M. Maurya
Faculty of Science
Department of Geology
The M. S. University of Baroda
Vadodara - 390 002, India
Email: dmmaurya@yahoo.com

Prof. Ashok Singhvi
Senior Professor
Luminescence Dating
Planetary and Geosciences Division
Physical Research Laboratory
Navrangpura
Ahmedabad, 380 009, India
Email: singhvi@prl.res.in

Place: Baroda
Date: 01/12/06

(**Atul Kumar Patidar**)