

Krishna Kumar Kotra



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Faculty of Science, Technology and Engineering,
The University of the South Pacific, PMB: 9072, Port Vila, Vanuatu.

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ACADEMIC QUALIFICATIONS

Doctor of Philosophy

October 2010

Inorganic Chemistry

Andhra University,
Vizag, AP, INDIA.

(<http://www.andhrauniversity.edu.in/phd/2010%20SCIENCE%20%20Ph.D.pdf>) P- 4, S.No. 71

Thesis

(Best Thesis Award – 2010, Andhra University)

(<http://www.andhrauniversity.edu.in/convocation/convocation2-04012014.jpg>)

“A Geochemical Assessment Of Groundwater Quality With Focus On Fluoride Along The Coast Of Visakhapatnam, Vizianagaram And Srikakulam Districts, Andhra Pradesh, India”.

Director: Prof. M. S. Prasada Rao (Former Registrar and Chairman Board of Studies, Andhra University)

Pre-Doctoral

Advanced Instrumentation Techniques, Advanced Inorganic Chemistry, Geophysical & Geochemical Assessment Techniques, Environmental Impact Assessment, Pollution Control Techniques, Groundwater Chemistry, Water Bodies, SI, WHO, EPA protocols, Ecology and Environmental Chemistry

Master of Philosophy

September 2006, First Class

Inorganic Chemistry

Annamali University,
Chindabaram, TN, INDIA.

- Advanced Inorganic Chemistry, Instrumentation Techniques, Spectroscopy Techniques, Analytical Chemistry, Environmental Chemistry

Dissertation:

“Some Studies on the Distribution of Fluoride in Ground Water Samples in Urban and Rural Areas of Visakhapatnam District”.

Guide: Prof. Y. L. N. Murthy (Former Director and Head, School of Chemistry, Andhra University)

Master of Science

April 2003, First Class

Applied Environmental Chemistry

Andhra University,
Vizag, AP, INDIA.

(Best Project Work Medal)

- Instrumentation Techniques, Spectroscopy Techniques, Mass Spectrometry, Organometallic Chemistry, Inorganic Chemistry, Industrial Chemistry, Organic Chemistry, Natural Products, Physical Chemistry, Analytical Chemistry Environmental Chemistry and Electrochemistry.

Dissertation:

“Groundwater quality assessment in rural and urban habitations in and around Visakhapatnam district.”

Advisor: Prof. P.V. Krishna Rao (Former Head, School of Chemistry, Andhra University)

TEACHING EXPERIENCE

- **Lecturer and Science Programme Coordinator** **Since February 2015**
School of Biological and Chemical Sciences, FSTE,
The University of the South Pacific, Emalus Campus, Port Vila, Vanuatu.

Course Work: 3 year Bachelor of Science

- **Associate Professor** **1st May 2012 – 24th January 2015**
Dept. of Chemistry,
Sanketika Vidya Parishad, Visakhapatnam, AP, India.

Course Work: 4 year Bachelor of Technology / Engineering

- **Assistant Professor** **7th October 2010 – 30th April 2012**
Dept. of Chemistry,
SITAM Engineering College, PM Palem, Vizag, AP, India.

Course Work: 4 year Bachelor of Technology / Engineering

- **Assistant Professor** **1st May 2004 – 31st January 2007**
Dept. of Chemistry,
AQJ Degree and PG College,
MVP Colony, Vizag, AP, India

Course Work: 2 year Post Graduation & 3 year Bachelor of Science

SUBJECT EXPERTISE

- * **Chemistry:** Inorganic, General, Analytical, Organic, Physical, Environmental, Engineering, Industrial and Marine – **Up to Graduate Level**

- * **Environmental Sciences – Up to Graduate Level**

- * **Biochemistry – Up to Under Graduate Level**

- * **Geology / Geophysics / Hydrology – Up to Under Graduate Level**

RESEARCH EXPERIENCE

- **Coordinator** **June 2009 – October 2010**

**Centralized Laboratory Facility (CLF),
Center for Studies on Bay of Bengal, Andhra University (AU), India.**

Role: **Coordination:** Geophysical and Geochemical Sample Collections, Qualitative and Quantitative Assessments, Major chemical interpretations for biological and ecological modeling studies.

- **Junior Research Fellow** **July 2007 – April 2009**

Department of Nuclear, Physical Chemistry and Oceanography, AU, India.

Project: Physiochemical Characterization of the Coastal and Near Shore Waters (Bay of Bengal) between Kalingapatnam and Kakinada in Andhra Pradesh State.

Agency: Ministry of Earth Sciences, Government of India.

Principal Investigator: *Prof. N. S. Sharma* (Emeritus and UGC Distinguished Professor)

Role: Sample Collection, Chemical assessments and interpretations, Data Storage.

- **Project Assistant** **June 2006 – May 2007**

Dept. of Geophysics, Andhra University, India.

Project: Origin and Distribution of Fluoride in Visakhapatnam City, Andhra Pradesh.

Agency: Association of Hydrologists of India.

Principal Investigator: *Prof. P. Rajendra Prasad* (Former Principal, Andhra University).

Role: Sample Collection, Assessments, Chemical Interpretations.

Ongoing Research Collaborations:

- **Centre for Environment Fisheries and Aquaculture Science, London, UK**
- **Global Coral Reef Alliance, Cambridge, USA**
- **Connected Waters Initiative, University of New South Wales**
- **Oceania Water Research Consortium, University of Auckland**
- **Ocean Foundation, USA**
- **Griffith University, Australia**
- **ETH University, Switzerland**
- **Oxford University, UK**
- **Woods Hole Oceanographic Institute, USA**
- **The Department of Engineering Chemistry, GITAM University, India**

Completed / Ongoing Research Projects:

- Restoration of Coral Reef at Havannah Bay, Port Vila, Vanuatu – Collaborative Project with Global Coral Reef Alliance, USA. (Completed)
- Estimation of coastal waters for various biological mappings of Port Vila, Vanuatu – Collaborative Project with Centre for Environment Fisheries and Aquaculture Science, London, UK. (Ongoing)
- Physiochemical assessment of harvested rain water in Port Vila, Vanuatu – The University of the South Pacific staff project. (**Principal Investigator**) (Completed)
- Geochemical assessment of offshore groundwater along Bay of Bengal, India, Collaborative Project with Andhra University, India. (Completed)
- Towards National Drinking Water Standards in Vanuatu: Applied Research and Capacity Building. (**Principal Investigator**) (Ongoing)
- Ocean Acidification Monitoring Project. (**Principal Investigator**) (Ongoing)

RESEARCH FORUMS

- **ResearchGate** http://www.researchgate.net/profile/Kotra_Krishna_Kumar
- **ORCID** orcid.org/0000-0002-2140-7163
- **Google Scholar** <https://scholar.google.com/citations?user=4Av6nOcAAAAJ&hl=en>

PUBLICATIONS

Peer Reviewed Scientific Articles

International

- Geomorphological impact assessment on groundwater quality and fluoride genesis along the Bay of Bengal of Visakhapatnam district, Andhra Pradesh, India
Krishna Kumar Kotra. *Clean, Soil, Air, Water* **2011, 39 (10), 925-930**. [Impact Factor: 2.17]
- Impact of geomorphology and fluoride genesis on groundwater quality along the Bay of Bengal of Srikakulam district, Andhra Pradesh, India
Krishna Kumar Kotra. *Water and Environment* **2012, 26 (4), 422-428**. [Impact Factor: 1.1]
- Coastal groundwaters – a geo-hydro chemical exploration for factors controlling genesis and spatial distribution of fluoride
Krishna Kumar Kotra, Yessayya Vasantha. *Int. J. Environment & Resource* **2012, 01 (2), 50-61**.
- A study on the geochemistry of fluoride groundwater for delineation of fluoride zones
Krishna Kumar Kotra. *International Research Journal of Pure and Applied Chemistry* **2014, 4 (1), 14-25**.
- Geophysical monitoring for the prospects of groundwater in the hard rock terrain regions along the Thandava River basin

Krishna Kumar Kotra, Israel Yedluri. *British Journal of Applied Science & Technology* **2014**, **4** (2), 338-349.

- Geochemical assessment of groundwater along Thandava river basin, Andhra Pradesh, India
Krishna Kumar Kotra, Israel Y & Sowjanya P. *Nature Environment & Pollution Technology* **2013**, **12**, (4), 709-716.
- Impact of Cyclone PAM on Rainwater Harvesting Prospects in the Pacific Region
Krishna Kumar Kotra, *British Journal of Applied Science & Technology* **2016**, **12** (4), 1-11.
- Integrated geophysical and geochemical assessment for the comprehensive study of groundwater
Krishna Kumar Kotra, Israel Yedluri, Sowjanya P, Surendra Prasad. *Water Air Soil Pollution* **2016**, **227.6**, 1-16.
- Rainwater harvesting for drinking – A physiochemical assessment in Port Vila, Vanuatu
Krishna Kumar Kotra, Sailesh Samantha & Surendra Prasad, *South Pacific Journal of Natural and Applied Sciences* **2017**, **35**(2), 33-44.
- Fluoride removal practices: Realities and Challenges (Review Paper)
Krishna Kumar Kotra *Under Preparation*

National

- Fluoride Problem – A psychological Perspective
Subba Rao K, **Krishna Kumar Kotra**. *Parapsychology Today* **2008**, **VIII** (2), 62-66.
- Fluorosis – Psychological impact on learning and development of children
Krishna Kumar Kotra. *Parapsychology Today* **2011**, **XI** (4), 92-96.
- Groundwater - Fluoride: geochemical assessment along Bay of Bengal of Vizianagaram
Krishna Kumar Kotra. *Indian Water Works Association* **2012**, **XXXXIV** (2) / 125-130.
- Batch studies for effective fluoride removal prior to treatment
Krishna Kumar Kotra, Sowjanya P, Srikanth B *Under Review*

SEMINARS / WORKSHOPS (Selected):

International

1. “International Conference on Sustainable Environmental Sanitation and Water Resources during the New Millennium (SESNM: 2008)”, GITAM University, at Vizag, 13-14th, August 2008 – **Paper Presentation**.
2. Participated in “95th Indian Science Congress Associations (ISCA)” held at Andhra University, 2-8th, January 2008 - **Service Volunteer**.
3. “International Seminar of IndiaCon-2011 on Sustainable Environment and Desalination”, at Vizianagaram, 23-25th, March 2011 – **Paper Presentation**.
4. “International Seminar of Coastal Chemical Society”, at Sanketika Engineering College, 13-14th July, 2013 – **Paper Presentation**.
5. “Australasian Groundwater Conference – 2017” at University of New South Wales, Sydney, 11-13th June, 2017 – **Paper Presentation**

National

1. “National Conference on Environment Today & Tomorrow” at Vizag, 21-22nd, January 2005 – **Paper Presentation.**
2. “25th Annual convention of Association of Hydrologists of India and National Seminar on Hydrology”, at University of Madras, 26-28th, March 2007 – **Paper Presentation.**
3. “Fluorosis – Mitigation Strategies”, at Vizag, 14-15th, July 2007 – **Paper Presentation.**
4. “43rd Annual convention and meeting on Geophysical Techniques in Mineral Exploration and Exploitation”, at Central Mining Research Institute, Dhanbad, Jharkhand, 16-17th, February 2008 – **Paper Presentation.**
5. “National Seminar on Analytical Chemistry – Vision 2020” at IICT Center, Hyderabad, 19-21st, July 2009 – **Paper Presentation.**
6. “National Seminar on “Globalization and Challenges for Chemists” at Vizag, 14-15th, June 2011 – **Paper Presentation.**
7. “48th Annual Convention of Indian Geological Union”, at Vizag, 22-23rd, December 2011 – **Paper Presentation.**
8. “AP Science Congress Meeting”, GITAM University, 18-21st, August 2012 – **Participation.**
9. “Emerging Trends in Chemical Research (NCETCR-2012)”, at GITAM University, 7-8th, September 2012 – **Paper Presentation.**
10. “Climate Change and Effects on Sustainable Livelihoods of the marginalized” at Andhra University, Vizag, 22-23rd March, 2013 – **Paper Presentation.**
11. **Coordinator** for two day National Workshop “World Environment Day – Think – Eat – Save”, 4-5th June, 2013.
12. “National Seminar on Recent Trends and Future Perspectives in Material Science” at Andhra University, 28-29th June, 2013 – **Participation.**
13. National Workshop on “Environmental Pollution: Impact and a New Approach to its Control” at Andhra University, 6th February, 2014 – **Participation.**
14. National Workshop on “Surface Engineering and Nanotechnology for Advanced Materials” at GITAM University, 22nd March, 2014 – **Participation.**
15. **Organized** Two day workshop of “Restoration of Coral Reef” at The University of South Pacific, Emalus Campus, Port Vila, 13-14th June, 20016.
16. Workshop on “Analytical Instrumentation” at Visakhapatnam organized by Coastal Chemical Society, 2nd - 13th January, 2017.

PROFESSIONAL MEMBERSHIPS

- Member: **American Chemical Society**
- Life Member: **Indian Science Congress Associations**
- Life Member: **Indian Geological Union**
- Life Member: **Indian Psychical Research Society**
- Member: **Association of Hydrologists of India**
- Member: **Coastal Chemical Society**
- Member: **Engineers Without Borders**
- Member: **Geological Society of India**

REVIEW MEMBER

- Water Science and Technology
- Environmental Science and Pollution Research
- Environmental Geochemistry and Health
- International Journal of Research in Environmental Studies
- African Journal of Environmental Science and Technology
- Herald Journal of Geography and Regional Planning
- International Research Journal of Agricultural Science and Soil Science
- Parapsychology Today

PROFESSIONAL TRAINING

- Instrumentation Techniques Center for Studies on Bay of Bengal, Andhra University, Vizag, India.
- Analytical Skills & Data Management School of Chemistry, Andhra University, Vizag, India.
- Qualitative and Quantitative Assessments Material Testing House, H.B.Colony, Vizag, India.
- Advanced Training on Analytical Skills Center for Studies on Bay of Bengal, Andhra University, Vizag, India.
- Ocean Acidification Institute of Applied Sciences, USP, Suva, Fiji

RESEARCH GUIDANCE

- **Co-Guide:** Mrs. V. Surya Kumari (Ph.D), Andhra University
- **Co-Guide:** Mrs. P. Sowjanya (Ph.D), GITAM University Since 2012
- **Director:** Miss. K. Aruna, Mr P. Kalyan, Mr J. Sudhakar (B.Tech.) 2011 to 2012
- **Project Guidance:** Graduate and Undergraduate students: 2010 – to till date

FELLOWSHIPS AND ACHIEVEMENTS

- **BBC – World Have Your Say – Live Program with World Bank CEO: 20th March, 2015 –**
(Selected for questioning on environmental impacts in the Pacific region and role of WB in policy making)
- **Young Researcher Medal, 2014:** SVP Engineering College.
- **Best Teacher Award, 2012:** SITAM Engineering College.
- **Best Research Paper, 2011:** Indian Geological Union.
- **Best Thesis (Ph.D.) Award, 2010:** Andhra University.
- **Senior Research Fellowship, 2009:** Dept. of Science and Technology, Govt. of India.
- **Best Paper Presentation, 2008:** SESNM 2008, GITAM University.
- **Young Scholar Award, 2008:** Indian Psychological Research Society.
- **Junior Research Fellowship, 2007:** University Grants Commission, Govt. of India.
- **Best Teacher Award, 2004:** Aditya Degree & PG College.
- **Best Project Work Medal, 2002:** GITAM University.

ADMINISTRATIVE EXPERIENCE

- **Coordinator, Science Programme**, The University of South Pacific, Emalus Campus since **September 2016**.
- **Coordinator, General Administration**, SVP Engineering College **September 2013 – January 2015**.
- **In-charge – Exam Cell**, SVP Engineering College **since December 2012 – January 2015**
- **In-charge – Counseling Wing**, SVP Engineering College **since July 2012 – January 2015**.
- **Coordinator – Sanketika Research Forum**, SVP Engineering College **since August 2012 – January 2015**.
- **Head – Dept. of Basic Sciences**, SITAM Engineering College **March 2011 – November 2012**.
- **Coordinator – Academic affairs**, SITAM Engineering College **March 2011 – October 2012**.
- **Coordinator – Kolleru Lake Project**, Center for Studies on Bay of Bengal, **June 2009 – October 2010**.
- **Coordinator – Centralized Laboratory Facility** – Center for Studies on Bay of Bengal, **September 2009 – October 2010**.
- **Union -Representative – Research Scholars Forum**, Andhra University, **March 2008 – February 2009**.

SOFTWARE SKILLS

- CHEMDRAW, Chem Window, Advanced Grapher, Surfer 8.0, Array visualizer, Ferret, Grads
- NMR & ICP-MS Processing and Reporting tools, IX1D.v3, GWchart, VES plot, WATEQ 4F, Fortran

ADVANCED INSTRUMENTATION

- ICP-MS (Agilent 700 S) - HPLC (Agilent Tech, Model 1200)
- UV/VIS (Schimadzu) - NMR (Bruker 600 MHz)
- GC-MS, (Agilent Tech) - LC-MS - AAS (Elico, 415 R)
- AES (Perkin Elmer, 2100 DV) - Water Analyzer (Elico) etc.

ASSETS & NATURE

- Adaptable and Committed
- Strong Will to Pay Back to the Society
- Strong analytical and problem-solving abilities
- Demonstrated knowledge of the principles of teaching, research and administration
- Ability to independently handle complex assignments
- Mentoring Skills

REFERENCES

Prof. Surendra Prasad

Head of School

School of Biological and Chemical Sciences;
Faculty of Science, Technology and Environment;
The University of the South Pacific,
Private Mail Bag, Suva, FIJI
Phone No. +679-3232416(W),
E mail: surendra.prasad@usp.ac.fj

Present Head of School

Prof. Y. Prasanna Kumar

Principal,

Sanketika Vidya Parishad Engineering College,
PM Palem, Visakhapatnam-530003.
Office: +91-0891 – 2781375
Mobile: +91-9989030314
Email: prasanna_ky1@yahoo.co.in

Former Institute Head

Dr Brett Lyons

Group Manager,

Environment and Animal Health,
Centre for Environment Fisheries Agriculture Science
Cefas Weymouth Laboratory,
Barrack Road, The Nothe, Weymouth, Dorset, DT4 8UB, London, UK.
Tel: +44 (0)1305 206624 (Direct) +44 (0)1305 206600 (Office)
E mail: brett.lyons@cefas.co.uk

Research Collaborator

I hereby declare that the above stated information is true to best of my abilities and state and I adhere to it and present the same as and when required.



Krishna Kumar Kotra