

Prof. BRawal, Chemistry Instructor
Houston Community College
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(a) Professional Preparation

Master of Science - Chemistry Texas Southern University, Houston, TX	01/1998 - 04/2000
Master of Education University of St. Thomas, Houston, TX	05/2001 - 07/2003
Bachelor of Science- Chemical Engineering Gujarat University, Ahmedabad, India	09/1993 - 07/1996

(b) Appointments

Full-time Chemistry Instructor-Houston Community College, Katy	08/2013 - Current
Dual Credit Chemistry Instructor – Lone Star Community College	08/2012 - 06/2013
Dual Credit Chemistry Instructor - Houston Community College	08/2006 - 06/2012
Part-time Chemistry Instructor Seattle central Community College, Winter Quarter	01/2006 - 03/2006
Bellevue Community College, Spring Quarter	04/2006 - 06/2006
Dual Credit Chemistry Instructor-The Banff school, Houston, TX	08/2004 - 05/2005
Adjunct Chemistry Instructor Houston Community College, Northwest	08/2002 - 05/2004

(c) Products

PUBLISHED BOOK INTERVIEW: A student guide to Energy, volume 5: Energy Efficiency, Conservation, and sustainability, a book interview by John F. Mongillo, 2011, page #57-62

RESEARCH: Separated a water-soluble chelating reagent, which forms a complex with iron; this complex should be highly beneficial when given to plants as a nutrient solution. High performance liquid chromatography and spectrophotometric methods were used for this research. The outcome of this work is a master's thesis with the title 'HPLC separation of metal ions using water soluble chelating reagents.' Texas Southern University, Dr. Yuan Jian Deng, April 2000

NOAA Research: This field/research experience on a NOAA R/V Walton Smith ship along Gulf Coast of Florida.

(d) Synergistic Activities

REEMS Program and AMP Scholar Program faculty mentor

Aspiring Engineering faculty advisor

NOAA RESEARCH, 2013: Selected by NOAA teacher at sea program to participate in R/V Walton Smith cruise along the Gulf coast of Florida, Performed oceanic research in R/V Walton Smith. Learned, starting from collecting samples, scientific testing, and communication among multiple teams and returned to the classroom loaded with anecdotes, experiences, and knowledge of marine science careers to help empower students. After coming back from expedition, I had my students analyze the data and graphs from this research over the years, understanding the importance of collecting data, study of changes in ocean over time through activities.

BIODIVERSITY IN COSTA RICA IN 2013: As a Toyota International teacher program participant to Costa Rica, I analyzed biodiversity in the rain forests of Costa Rica. My students worked on a biodiversity analysis project and compared Houston's bayou with Costa Rican rainforest. As a fund for teacher fellow, I have travelled to Earth University and La Selva Biological reserve to participate in an environmental conservation research in Costa Rica.

MIT INVENTION PROJECT, 2011: We zeroed in on the idea of an "energy efficient cooling blanket". It was simple, highly challenging, and required real technical breakthroughs to actually succeed. I inspired and recruited students to initiate this project. Our project was one of 14 finalists selected nationwide to receive the grant by the Lemelson -MIT foundation. We worked hard and studied science topics such as heat transfer, energy savings, alternative energy, thermal expansion etc. In June 2011, our team showcased a prototype of our invention in EurekaFest at MIT!