

TARA CHKLOVSKI

A. PROFESSIONAL PREPARATION

- 2003-2006: Aerospace Engineering, PhD Candidate, University of Southern California, (USC), Los Angeles, CA
- 2003: Aerospace Engineering, M.S, Boston University, Boston, MA
- 1999: Physics (Honors), B.Sc., St. Stephen's College, Delhi, India

B. APPOINTMENTS

- 2006-Present: Founder, CEO, Iridescent, Los Angeles, CA
- 2007-Present: Faculty (part-time), Aerospace & Mechanical Engineering (AME) Department, USC, Los Angeles, CA
- 2007-Present: Faculty, Los Angeles Trade Technical College, Los Angeles, CA
- 2002-2003: Research Fellow, Massachusetts General Hospital, Boston, MA
- 2001-2002: Research Assistant, AME Department, Boston University, MA
- 2000: Principal, Chiragh Grammar School, Meerut, India

C. PEDAGOGICAL EXPERIENCE

07/2006-PRESENT: FOUNDER, CEO, IRIDESCENT

- Founded a science-education non-profit, Iridescent (www.IridescentLearning.org) that trains engineers from academia and industry to teach science to underrepresented minorities.
- Reached 7700 underserved children and adults in Los Angeles, San Francisco and New York City and provided 33,500 STEM programming contact hours
- Grown Iridescent from a single-person organization in 2007 to a 11-person team in 2010 with a \$2.2 million operating budget.

08/2007-PRESENT: ANNUAL GK-12 SUMMER TRAINING, New Jersey Institute of Technology, Newark, NJ

- Developed and implemented a summer training and online support program for C2PRISM, GK-12 fellows at NJIT.

08/2007-PRESENT: "ENGINEERS AS TEACHERS", ENGR 490 INSTRUCTOR, AME Department, USC

- Developed and implemented a 16-week engineer training program through which the Aerospace & Mechanical, Biomedical and Industrial Systems offer three units of technical elective credit to undergraduate students for being trained to develop and teach hands-on courses. Engineering students learn to break down complex concepts into a few big ideas, identify learning objectives for each session, develop experiments that illustrate the concept and develop formative assessments and pre and post-tests. We have also developed a lesson planning template through which engineers are able to develop successful courses on a topic of their interest.

03/2007-PRESENT: VOLUNTEER ENGINEER PROGRAM, IRIDESCENT

- Developed and implemented a range of volunteer, training programs (from 1-16 hours) for volunteering engineers from Boeing, Northrop Grumman, AeroVironment, Raytheon, Abbott Vascular, SolidWorks and Aerospace Corporation to develop and teach standards-aligned, inquiry-based activities for K-12 students. Trained ~ 163 engineers till date.

08/2007-PRESENT: FAMILY SCIENCE PROGRAM, IRIDESCENT

- Developed and implemented a successful Family Science program model through which parents conducted inquiry-based activities with their children. Conducted 67, standards-aligned multi-session courses.

08/2007-PRESENT: INTERNSHIP PROGRAM (HIGH-SCHOOL STUDENTS), IRIDESCENT

- Developed and implemented a high-school intern program through which seven high-school students from Foshay Learning Center and Animo Charter High School assisted in communicating with non-English speaking parents during Family Science Courses.

07/2007-08/2007: ENGINEERING 101, LOS ANGELES TRADE TECHNICAL COLLEGE, Los Angeles, CA

- Developed and implemented a 40 hour course for high-school students in which they learned about electricity and magnetism, heat transfer, conversion and conservation of energy, forces and motion by building a city that was powered by wind, water, solar and human power. Nine engineers from Boeing, AeroVironment, USC, Blackdust and Aerospace Corporation mentored the students.

D. MANAGEMENT EXPERIENCE

01/2000-08/2000: PRINCIPAL, CHIRAGH GRAMMAR SCHOOL, Meerut, India

Supervised ten teachers and 300 students from K-6 grades. Implemented project-based learning. Continued involvement till date as partner organization.

E. RESEARCH AND INDUSTRY EXPERIENCE

Intern, (*AEROVIRONMENT, 2004*), Research Fellow (*MASSACHUSETTS GENERAL HOSPITAL, 09/2002-01/2003*), Research Assistant, (*BOSTON UNIVERSITY, 2001-2002*), Research Assistant, (*HINDUSTAN AERONAUTICS LIMITED, 1999*).

F. PUBLICATIONS & CONFERENCES

Jenkins-Stark, L. and Chklovski, T. (2010). Engineers as Teachers: Helping engineers bring cutting edge science to underserved communities. American Society for Engineering Education (ASEE) presentations at the 2010 Annual Conference & Exposition Louisville, KY.

Jenkins-Stark, L. and Chklovski, T. (2010). Engineers as Teachers: Bringing cutting-edge math and science topics into underprivileged classrooms via student and professional engineers. American Society for Engineering Education (ASEE) presentations at the 2010 Annual Conference & Exposition, Louisville, KY.

Jenkins-Stark, L. and Chklovski, T. (2010). How to inspire and equip urban minority children to become scientists and engineers. National Science Teachers Association, National Conference, Philadelphia, PA

Jenkins-Stark, L. and Chklovski, T. (2010). Life in a fluid: How are bacteria similar to whales? National Science Teachers Association, National Conference, Philadelphia, PA

Chklovski, T. (2009). Sharing the Passion. Mechanical Engineering, The Magazine of ASME.

Yarin, P. and Chklovski, T. (2009). Energy City. National Science Teachers Association, National Conference, New Orleans, LA

Chklovski, T. (2009). Attracting Young Minds with "Engineers as Teachers". American Society for Engineering Education (ASEE) presentations at the 2010 Annual Conference & Exposition, Austin, TX.