

TIRUPALAVANAM G. GANESH

Curriculum vitae

Ira A Fulton Schools of Engineering
Arizona State University, Tempe, AZ

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EDUCATION

Doctor of Philosophy, Education, Media, and Computers, Arizona State University, Tempe, Arizona, USA, 2003, Dissertation: *Practices of Computer Use in Elementary Education*, Chair: David C. Berliner, Regents Professor

Master of Computer Science, College of Engineering and Applied Sciences, Arizona State University, Tempe, Arizona, USA, 1994, Research: *Software Engineering Reuse in the Unix Operating System*, Chair: James Collofello, Professor

Bachelor of Engineering, Computer Science and Engineering, National Institute of Engineering, University of Mysore, India, 1989, Thesis: *Software Development for Ladder Programming Language*, Chair: G. Raghavendra Rao, Professor

SELECTED RELATED EDUCATIONAL EXPERIENCES

Conducting Rigorous Research in Engineering Education: Exploring How People Learn Engineering, Golden, CO. Directors: Barbara M. Olds & Ron Miller, Colorado School of Mines, 2010

Technology-Enhanced Learning Experiments, Pittsburgh Science of Learning Center (PSLC) Summer School, Pittsburgh, PA. Directors: Kurt VanLehn, University of Pittsburgh & Ken Koedinger, Carnegie Mellon University, 2007

Arts Based Approaches to Educational Research, American Educational Research Association (AERA) Winter Institute, Palo Alto, CA. Directors: Elliot Eisner, Stanford University & Thomas Barone, Arizona State University, 2001

Project Zero, Education with New Technologies, Harvard University, Cambridge, MA. Directors: Howard Gardner & David Perkins, Harvard Graduate School of Education, 1999

Overview of Community Colleges, Mesa Community College, Mesa, AZ. 1996

PROFESSIONAL APPOINTMENTS

Tooker Professor, Arizona State University, Ira A Fulton Schools of Engineering, 2016 – to date

Assistant Dean, K-12 Engineering Education, Arizona State University, Ira A Fulton Schools of Engineering, 2013 – to date

Associate Research Professor, Arizona State University, School for Engineering of Matter, Transport, & Energy, Ira A Fulton Schools of Engineering, 2013 – to date

Assistant Professor, Engineering Education, Arizona State University, Ira A Fulton Schools of Engineering and Mary Lou Fulton Teachers College, Program Coordinator, Engineering Education PhD Concentration in Curriculum and Instruction, 2010 - 2012

Assistant Dean, Information Systems and Business Operations, Office of the Dean and **Graduate Faculty**, Mary Lou Fulton College of Education (later Mary Lou Fulton Institute and Graduate School of Education), Arizona State University, 2006 – 2009

Assistant Professor, Instructional Technology, Curriculum and Instruction, University of Houston, 2004 – 2006

Principal Research Analyst, Sr., Office of Vice President, University-School Partnerships and Office of the Dean, Mary Lou Fulton College of Education, Arizona State University, 1998 – 2004

Research Analyst, Bureau of Educational Research & Services, Arizona State University, 1994 – 1998

Lecturer, National Institute of Engineering, University of Mysore, Mysore, India, 1989 – 1990

Software Engineer Intern, Kirloskar Electric Ltd., Mysore, India, June 1988 - May 1989

OTHER PROFESSIONAL APPOINTMENTS

Sr. Sustainability Scientist, Global Institute of Sustainability, Arizona State University, 2011 – to date

Fellow, Center for Games and Impact, Arizona State University, 2012 – to date

Education Researcher, Schlumberger Excellence in Educational Development, 2005 – 2006

Editor, Current Issues in Education, cie.asu.edu, Open-access, scholarly, peer-reviewed journal, College of Education, Arizona State University, 1999, 2000

Education Advisor, Arizona Mining Association, 1996 – 1998

Graduate Student Instructor, Introduction to Computer Science and Engineering, Arizona State University, 1991 – 1994

ACADEMIC LEADERSHIP

Freshman Teaching Academy, Ira A Fulton Schools of Engineering, 2009 – 2012

Engineering Design for K-12 Teachers, 2010, 2011, 2012, 2016

Establishment of the Engineering Education PhD Concentration in Curriculum and Instruction & Mechanical and Aerospace Engineering, 2009 – 2010

Engineering Education PhD Core Course Curriculum Development, 2010 – 2012;
Foundations of Engineering Education; Assessment and Evaluation in Engineering Education;
Research Methods in Engineering Education; Advanced Research Methods in Engineering Education; Engineering Education Practicum: Applied Project

ASU 101 The Freshman Experience, Mary Lou Fulton College of Education, 2007 – 2009

RESEARCH AWARDS

Co-Principal Investigator, **Engineering Futures Scholars: Increasing Engineering Success through a Self-Efficacy Network and Identity Development**, Sponsor: National Science Foundation, Division of Undergraduate Education (DUE), Dollar Amount: \$1000,000, Period: 10/01/2018 – 9/30/2023; Collaborators: Principal Investigator: Kyle Squires, Dean; Co-Principal Investigators: James Collofello, Vice Dean; Robin Hammond, Director, Career Center; Ira A. Fulton Schools of Engineering; Terence Tracey, College of Integrative Sciences and Arts.

Co-Principal Investigator, **NOYCE: Developing Resilient STEM Teachers for High-Need Middle Schools**, Sponsor: National Science Foundation, Division of Undergraduate Education (DUE), Dollar Amount: \$1005,935, Period: 3/1/2018 – 2/28/2023; Collaborators: Principal Investigator: Pamela Harris; Co-Principal Investigators: Terri Kruz; Carrie Llyod, Mary Lou Fulton Teachers College.

Co-Principal Investigator, **Fostering Engineering Identity and Support Structures to Promote Entry and Persistence in Engineering for First-Generation Students**, Sponsor: National Science Foundation, Division of Engineering Education Centers (EEC), Dollar Amount: \$300,000, Period: 9/15/2017 – 8/31/2019; Collaborators: Principal Investigator: Kyle Squires, Dean; Co-Principal Investigators: James Collofello, Vice Dean; Robin Hammond, Director, Career Center; Ira A. Fulton Schools of Engineering; Karla Fisher, Provost, Maricopa Community Colleges; Maria Reyes, Vice President, Maricopa Community Colleges.

Co-Principal Investigator, **Supporting Collaborative Inquiry, Engineering, and Career Exploration with Water: Water SCIENCE**, Sponsor: National Science Foundation, Division of Research on Learning in Formal and Informal Learning Settings, Innovative Technologies for Students and Teachers, Dollar Amount: \$1,199,608, Period: 10/01/14 – 03/31/17; Collaborators: Principal Investigator: Carolyn Staudt, Concord Consortium, Boston, MA; Co-Principal Investigators: Melinda Daniels (co-PI), Director of Education, Stroud Water Research Center, PA; Saadia Baloch (co-PI), Executive Director, Machine Science Inc; Boston, MA.

Director, **National Summer Transport Institute**, Sponsor: U.S. Department of Transportation, Federal Highway Administration, 2015: \$55,000, 2016: \$47,775, 2017: \$46,955, 2019: \$40,000
Sponsor: Arizona Department of Transportation 2016: \$24,500, 2017: \$23,676.

Director, **Engineers serving Education**, Sponsor: Boeing, 2015: \$24,000; 2016: \$24,000; 2017: \$24,000; 2018: \$24,000; 2019: \$24,000. Sponsor: Women in Philanthropy, \$47,250, July 2013 – June 2015; Collaborator, James Collofello, Associate Dean, Ira A Fulton Schools of Engineering, Arizona State University.

Senior Personnel, Director, Pre-College Education, **Engineering Research Center for Quantum Energy and Sustainable Solar Technologies: QESST**, Sponsor: National Science Foundation, Division of Engineering Education and Centers, Award #1041895, \$3,250,000, August 2011 - July 2016
With Christiana Honsberg, (PI), Arizona State University; Harry Atwater, California Institute of Technology; Luke Lester, University of New Mexico; Robert Opila, University of Delaware; Tonio Buonassisi, Massachusetts Institute of Technology.

Principal Investigator, **Learning through Engineering Design and Practice: Using our Human Capital for an Equitable Future**, Sponsor: National Science Foundation, Division of Research on Learning in Formal and Informal Learning Settings, Innovative Technology Experiences for Students and Teachers, Award #0737616, \$1,079,985, September 2007 - August 2012; With Co-PIs: Dale R. Baker, Science Education; Stephen Krause, Materials Science; James A. Middleton, Mathematics Education; Sharon Kurpius-Robinson, Counseling Psychology; Chell A. Roberts, Engineering; Monica Elser, Sustainability; Wendy Taylor, ASU Mars Project.

Principal Investigator, **Engineering Energy & Efficacy**, Sponsor: J P Morgan Chase Bank, \$60,000, June 2011 - July 2012

Principal Investigator, **Girls in Engineering: Shaping the Future**, Sponsor: Engineering Information Foundation, \$20,000, March 2011 - June 2012

Co-Principal Investigator, **Bisgrove Postdoctoral Scholars and Leadership Academy**, Sponsor: Science Foundation of Arizona, \$300,000, March 2011 - June 2013; With R. F. Shangraw, Vice President Research & Economic Affairs (PI); Andrew Weber, Professor, School of Life Sciences; Maria Allison, Vice Provost, Graduate Education & Dean, Graduate College; Clark Miller, Associate Director, Consortium for Science, Policy, & Outcomes.

Co-Principal Investigator, **Innovation through Institutional Integration (I3): The Modeling Institute**, Sponsor, National Science Foundation, Division of Undergraduate Education, Award #0930109, \$1,249,739, August 2009 - August 2014; With Elizabeth D. Capaldi, (PI) University Provost and Executive Vice President; Melinda Romero, Executive Director, Staff Development and Instructional Services, Chandler School District; Charles Kazilek, School of Life Sciences; Arizona State University; Colleen Megowan-Romanowicz, SMALLab K-12 Embodied and Mediated Learning; Carole Greenes, Associate Vice Provost for STEM Education; James A. Middleton, Mathematics Education; Monica Elser, Global Institute of Sustainability; Wendy L Taylor, School of Earth and Space Exploration.

Co-Principal Investigator, **Science Foundation Arizona (SFAz) Graduate Research Fellows K-12/Industry Programs at Arizona State University**, Sponsor: Science Foundation of Arizona, \$1,760,000, July 2009 - June 2012; With R. F. Shangraw (PI), Vice President Research & Economic Affairs; Andrew Weber, Associate Vice Provost Graduate Education; Maria Allison, Vice Provost & Dean, Graduate College.

Co-Principal Investigator, **Partnership, Pathway and Pipeline for Engineering Education: Engaging Middle School Students with Curricular Integration and Societal Relevance**, Sponsor: National Science Foundation, Division of Engineering Education and Centers, Award #0836040, \$99,830, January 2009 - December 2011; Deirdre R. Meldrum (PI), Dean, Lynn E. Cozort, Engineering Curricula; B. L. Ramakrishna, Materials Science; Susan Haag, Assessment; Vincent B. Pizziconi, Bioengineering; Stephen Krause, Materials Science; Arizona State University.

Co-Principal Investigator, **Development of a Framework for Open Source K-12 Engineering Education Resources**, Sponsor: CK-12 Foundation, CK12.org, \$60,000, January 2008 - December 2008; With Chell A. Roberts (PI), Chair, Engineering at the Polytechnic Campus, Dale A. Baker, Science Education; Stephen Krause, Materials Science; Darryl Morrell, Engineering at the Polytechnic Campus; Annapurna Ganesh and Janel-White Taylor, School of Educational Innovation & Teacher Preparation; Arizona State University.

RESEARCH PROPOSALS (NOT FUNDED)

Principal Investigator, **Re-engineering Elementary Science Education (RESE): Facilitating Systemic Change using PBS Design Squad Challenges**, Sponsor: National Science Foundation, Division of Research on Learning in Formal and Informal Learning Settings, Discovery Research K-12, Dollar Amount: \$ 2,999,989, Proposed Period: 06/01/14 – 05/31/18

Collaborators: Marisa Wolsky, Design Squad, WGBH Boston; Laura Neville, Director, Curriculum and Assessment, Kyrene School District.

Principal Investigator, **Engineering Habits of Mind**, Sponsor: National Science Foundation, Division of Research on Learning in Formal and Informal Learning Settings, Discovery Research K-12, Dollar Amount: \$3,499,997, Proposed Period: 08/01/11 – 07/31/16
With Co-PIs Dale Baker, Science Education; Terence Tracey, Psychometrician; James Middleton, Mathematics Education; Theresa Sweeney, Director, and Suzi Mast, Assistant Director, Curriculum & Assessment.

SYNERGISTIC ACTIVITIES

Director, **Autodesk Fusion 360 Student Expert**, Sponsor: Autodesk. Dollar Amount: \$5000, Fall 2015, Spring 2016. Develop 3D CAD skills in Introduction to Engineering courses, train student experts (N=5), support Capstone design projects. With Reid Johnson, Autodesk Education Expert.

Sponsor/Client, **Low Cost Microscope Stand Design**, January 2015-May 2016. Engineering Projects in Community Service, Interdisciplinary project to support K-12 engineering education. Develop an affordable model for using the ubiquitous smart phone cameras as microscopes at scale.

Sponsor/Client, **Design of Soft Robot using 3D printing and Silicon gel**, January 2015-May 2016. Engineering Projects in Community Service, Interdisciplinary project to 3D print molds and make silicon sleeves that use air-muscles for movement.

PUBLICATIONS—BOOKS

- Ganesh, T. G.**, Boriack, A. W., Stillisano, J. R., Davis, T. J., & Waxman, H. C. (Eds.). (2015). *Research on technology use in multicultural settings*. (243 pages). Charlotte, NC: Information Age. ISBN: 9781623968250. [Edited Volume]
- Baker, D., Ganesh, A., **Ganesh, T. G.**, Krause, S., Morrell, D., Roberts, C., White-Taylor, J. (2009). *Engineering: An Introduction for High School*. (213 pages). San Francisco, CA: www.ck12.org. [Co-Authored Book]

BOOK CHAPTERS

- Amrein-Beardsley, A., Barnett, J., & **Ganesh, T. G.** (2016). Legitimate Apprehensions about Evaluating Teacher Preparation Programs: And Seven “Beyond Excuses” Imperatives. In Mathis, B. & Trujillo, T. (Eds). *Edited Volume*. Boulder, CO: University of Colorado, National Education Policy Center.
- Ganesh, T. G.** (2015). Strategies to engage female and Hispanic youth in robotics in the Southwestern United States. In **Ganesh, T. G.**, Boriack, A. W., Stillisano, J. R., Davis, T. J., & Waxman, H. C. (Eds). *Research on Technology Use in Multicultural Settings* (pp. 177-193). Charlotte, NC: Information Age.

- Boriack, A. W., **Ganesh, T. G.**, & Waxman, H. C. (2015). Future directions for improving technology use in multicultural settings. In Ganesh, T. G., Boriack, A. W., Stillisano, J. R., Davis, T. J., & Waxman, H. C. (Eds). *Research on Technology Use in Multicultural Settings* (pp. 225-236). Charlotte, NC: Information Age.
- Ganesh, T. G.** & Schnittka, C. (2014). Engineering education in the middle grades. In Purzer, S., Strobel, J., & Cardella, M. (Eds.) *Engineering in Pre-College Settings: Synthesizing Research, Policy, and Practices* (pp. 89-116). West Lafayette, IN: Purdue University Press.
- Ganesh, T. G.** (2014). Making public educational research: Enabling impact as integral to the educational research process. [Response to John Willinsky, Stanford University] In A. Reid, E. P. Hart, & M. A. Peters (Eds.), *A Companion to Research in Education* (pp. 587-590). London, UK: Springer.
- Ganesh, T. G.** (2011). Children-produced drawings: an interpretive and analytic tool for researchers. In E. Margolis, & L. Pauwels, (Eds.). *The Sage Handbook of Visual Research Methods* (pp. 214-240). London, UK: Sage.
- Besnoy, K. D., Clarke, L., Thieken, J., & **Ganesh, T. G.** (2010). Why teach with technology. In K. D. Besnoy & L. Clarke (Eds.). *High-tech Teaching Success! A Step-by-Step guide to Using Innovative Technology in Your Classroom* (pp. 226-238). Waco, TX: Prufrock Press.
- McCormack, S., McDonald, D., **Ganesh, T. G.**, & Foster, A. S. (2007). Overview & framework: Impact and consequences of accountability systems. In L. F. Deretchin & C. Craig (Eds.). *International Research on the Impact of Accountability: The Association of Teacher Educators Yearbook XVI* (pp. 47-51). Lanham, MD: Rowman & Littlefield Education.
- McCormack, S., McDonald, D., **Ganesh, T. G.**, & Foster, A. S. (2007). Summary & implications: Impact and consequences of accountability systems. In L. F. Deretchin & C. Craig (Eds.). *International Research on the Impact of Accountability: The Association of Teacher Educators Yearbook XVI* (pp. 129-131). Lanham, MD: Rowman & Littlefield Education.

REFEREED PUBLICATIONS

- Ferrone, C., **Ganesh, T. G.**, Velez, J., Collofello, J., Squires, K. D. (2020). Does EPICS as a pre-college program foster engineering identity development as correlated to doing engineering? Paper to be presented at the NSF Grantees Poster Session. Proceedings of the American Society of Engineering Education (ASEE) 2020.
- Haolin, Z., **Ganesh, T. G.**, & Sonnier, C. (2019). Studying Changes using Concept Maps in First-Year Students' Understanding of the Engineering Design Process. Presented at the Best of First Year Programs: Best Paper Session. Proceedings of the American Society of Engineering Education (ASEE) 2019 (Paper no. 27035; pp. 1-23). Washington, D.C.: ASEE Publications.
- Ganesh, T. G.**, Squires, K. D., Collofello, J., Hammond, R., & Ferrone C. (2019). Assessing Interest and Appeal of Engineering in a High School Program Designed to Enhance Entry into Engineering in an INCLUDES project. Presented at the NSF Grantees Poster Session. Proceedings of the American Society of Engineering Education (ASEE) 2019 (Paper no. 32377; pp. 1-11). Washington, D.C.: ASEE Publications.

- Ruth, A., Hackman, J., Brewis, A., Spence, T., Luchmun, R., Velez, J., & **Ganesh, T. G.** (2019). Engineering Projects in Community Service (EPICS) in High Schools: Subtle but Potentially Important Student Gains Detected from Human-Centered Curriculum Design, *Education Sciences*, 9 (35), doi:10.3390/educsci9010035.
- Ganesh, T. G.**, Squires, K. D., Collofello, J., & Hammond, R. (2018). Engineers from Day One (Work in Progress). Proceedings of the American Society of Engineering Education (ASEE) 2018 (Paper no. 23722; pp. 1-12). Washington, D.C.: ASEE Publications.
- Ruth, A., Hackman, J., Spence, T., Velez, J., Parker, H., & **Ganesh, T. G.** (2018). Engineering Projects in Community Service (EPICS) High: Culturally Responsive Programing and Learning Outcomes for Underrepresented Students in Arizona. (Work in Progress). Proceedings of the American Society of Engineering Education (ASEE) 2018 (Paper no. 22516; pp. 1-14). Washington, D.C.: ASEE Publications.
- Trowbridge, A., **Ganesh, T. G.**, Chen, D. K., & Roldan, J. L. (2017). Work in Progress: A Qualitative Analysis of Students' Emerging Understanding of Becoming a Grand Challenge Scholar Engineer. Proceedings of the American Society of Engineering Education (ASEE) 2017 (Paper no. 20500; pp. 1-6). Washington, D.C.: ASEE Publications.
- Ligon, R. A., Dolezal, A. G., Hicks, M. R., Butler, M. W., Morehouse, N. I., & **Ganesh, T. G.** (2014, October). Using ants, animal behavior, and the Learning Cycle to investigate scientific processes. *The American Biology Teacher*, 76(8): 525-534, DOI: 10.1525/abt.2014.76.8.6.
- Megowan-Romanowicz, M. C., Middleton, J. A., **Ganesh, T. G.**, & Jonaou, J. (2013, Spring). Norms for participation in middle school mathematics classroom and its effect on student motivation. *Middle Grades Research Journal*, 8(1): 51-76.
- Seymoure, B. M., Moeller, K., Brochert, J., Stahlshmidt, A., **Ganesh, T. G.**, & Webber, A. (2013, April) Our watery world: teaching middle-school students about biodiversity. *Science Scope*, 36(8): 72-78.
- Beardsley, A., Barnett, J., & **Ganesh, T. G.** (2013). Seven legitimate apprehensions about evaluating teacher education programs and seven "Beyond Excuses" imperatives. *Teachers College Record*. Volume 115 Number 12, 2013, p. <http://www.tcrecord.org> ID Number: 17251
- Zwart, C., Ryan, J., Frakes, D., & **Ganesh, T. G.** (2013, February). Hand Drawn: Lessons on neuromuscular control and prosthetic hand design. *Science Scope*, 36(6): 46-53.
- Foster, C., Crowder, M., & **Ganesh, T. G.** (2013). Work in Progress: Engineering the Human Heart in the Sixth Grade Classroom. Proceedings of the 43rd ASEE/IEEE Frontiers in Education (FIE) 2013. Oklahoma City, OK: ASEE/IEEE.
- Foster, C., Crowder, M., Nelson, K., & **Ganesh, T. G.** (2012). Developing engineering systems thinking through the modeling of a complex bioengineering system. Proceedings of the 42nd ASEE/IEEE Frontiers in Education (FIE) 2012, pp. 1275-76, Seattle, WA: ASEE/IEEE.
- Ganesh, T. G.** (2011). Design-based research: A framework for designing novel teaching and learning experiences in middle school engineering education. 41st ASEE/IEEE Frontiers in Education (FIE) 2011 (Paper no. 1534, pp. 1-7). Rapid City, SD: ASEE/IEEE.
- Ganesh, T. G.**, Randall, L. S., & Thielen, J. (2011). Designing and Testing Water Filtration Devices using the Engineering Design Process: A Description of an Eighth Grade Curricular Unit on Bioremediation. Proceedings of the American Society of Engineering

- Education (ASEE) 2011 (Paper no. AC 2011-1905; pp. 1-15). Washington, D.C.: ASEE Publications.
- Puruhito, K., Husman, J., Hilpert, J., **Ganesh, T. G.**, & Stump, G. (2011). Increasing instrumentality without decreasing instructional time: An intervention for engineering students. 41st ASEE/IEEE Frontiers in Education (FIE) 2011 (Paper no. 1659, pp. 1-6). Rapid City, SD: ASEE/IEEE.
- Ganesh, T. G.**, Thieken, J., Randall, L. S., & Smith, A. (2011). Renewable Energy Internships: Study of Seventh and Eighth Grade Students Knowledge of Related Science and Engineering Content. Proceedings of the American Society of Engineering Education (ASEE) 2011 (Paper no. AC 2011-2123; pp. 1-18). Washington, D.C.: ASEE Publications.
- Thieken, J. & **Ganesh, T. G.** (2011). Analysis of Census Survey of Middle School Students' Knowledge of Engineers and Engineering in a Large Suburban K-8 School District. Proceedings of the American Society of Engineering Education (ASEE) 2011 (Paper no. AC 2011-2324; pp. 1-20). Washington, D.C.: ASEE Publications.
- Ganesh, T. G.** (2011). Analyzing subject-produced drawings: The use of the draw-an-engineer-assessment in context. Proceedings of the American Society of Engineering Education (ASEE) 2011 (Paper no. AC 2011-2655; pp. 1-25). Washington, D.C.: ASEE Publications.
- Pizziconi, V., Haag, S., **Ganesh, T. G.**, Cozort, L., Krause, S., Tasooji, A., Ramakrishna, B. L., Meldrum, D., Lunt, B., Valdez, A., & Yarbrough, V. (2010). The P3E2 Project: The introduction, implementation, and evaluation of engineering design integrated across the middle school curriculum. Proceedings of the American Society of Engineering Education (ASEE) 2010 (Paper no. AC 2010-2254; pp. 1-29). Washington, D.C.: ASEE Publications.
- Ganesh, T. G.** (2010). Informal engineering education: A study of how seventh grade students build robots to mimic specific desert tortoise behaviors. Proceedings of the American Society of Engineering Education (ASEE) 2010 (Paper no. AC 2010-2269; pp. 1-19). Washington, D.C.: ASEE Publications.
- Ganesh, T. G.**, & Thieken, J. (2010). Designing and implementing chain reactions: A study of seventh-grade students' knowledge of electrical circuits. Proceedings of the American Society of Engineering Education (ASEE) 2010 (Paper no. AC 2010-2272; pp. 1-13). Washington, D.C.: ASEE Publications.
- Ganesh, T. G.**, Thieken, J., Krause, S., Roberts, C., Baker, D., Taylor, W. L., Kurpius-Robinson, S., Middleton, J., Elser, M. M., & Golden, J. (2010). Learning through Engineering Design and Practice: Implementation and impact of a middle school engineering-education program. Proceedings of the American Society of Engineering Education (ASEE) 2010 (Paper no. AC 2010-2280; pp. 1-24). Washington, D.C.: ASEE Publications.
- Helding, B., Megowan-Romanowicz, M. C., **Ganesh, T. G.**, & Fang, S. (2010). Interdisciplinary modeling instruction: Helping fifth graders learn about levers. In, R. Lesh, P. Galbraith, C. Haines, & A. Hurford (Eds.), *Modeling Students' Mathematical Modeling Competencies*, pp. 327-340. New York, NY: Springer Science. DOI: 10.1007/978-94-007-6271-8_28.
- Ganesh, T. G.**, Thieken, J., Elser, M., Baker, D., Krause, S., Roberts, C., Kurpius-Robinson, S., Middleton, J., & Golden, J. (2009). Eliciting underserved middle-school youths' notions

- of engineers: draw an engineer. Proceedings of the American Society of Engineering Education (ASEE) 2009 (Paper no. AC 2009-2335; pp. 1-14). Washington, D.C.: ASEE Publications.
- Morrell, D., Roberts, C., Baker, D., Krause, S., **Ganesh, T. G.**, Ganesh, A., Beard, R., White-Taylor, J., Khosla, N., Pal, M., Kobara, J., & Vaidyanathan, M. (2008). Development of an open source high school text for engineering. Proceedings of the American Society of Engineering Education (ASEE) 2008 (Paper no. AC 2008-1322; pp. 1-7). Washington, D.C.: ASEE Publications.
- Ganesh, T. G.** (2007, April). Commentary through visual data: A critique of the United States school accountability movement. *Visual Studies*, 22 (1), 42-47.
DOI:10.1080/14725860601167184.
- Ganesh, T. G.** (2007). Critique through visual data: The impact of high-stakes testing expressed through teachers' drawings. In L. F. Deretchin & C. Craig (Eds.), *International Research on the Impact of Accountability: The Association of Teacher Educators Yearbook XVI* (pp. 157-168). Lanham, MD: Rowman & Littlefield Education.
- Ganesh, T. G.** & Middleton, J. A. (2006, May). Challenges in linguistically and culturally diverse elementary settings with math instruction using learning technologies. *The Urban Review*, 38 (1), 1-43.
- Ganesh, T. G.** (2004). Electronic journals in education and their indexing: Exploring notions of digital resources in virtual spaces. In P. O. Libutti (Ed.), *Digital Resources for the Education Library: Case Studies in Innovation, Invention, and Implementation* (pp. 36-49). Chicago, IL: Association of College and Resource Libraries.
- Ganesh, T. G.** (2003, Summer). Electronic journals in education: Living up to their promise? *Education Libraries*, 26 (1), 5-15. <http://education.sla.org/wp-content/uploads/2012/12/261Summer2003.pdf>
- Ganesh, T. G.** (2002, Fall). Held hostage by high-stakes testing: Drawing as symbolic resistance. *Teacher Education Quarterly*, 29 (4), 69-72.
- Ganesh, T. G.**, & Mangini, M. A. (1997, Summer). Engaging the stakeholders in a discussion on public education: The Arizona Phi Delta Kappa forum experience, *Arizona School Boards Association Journal*, 27 (3), 8-12.

INVITED PRESENTATIONS

- Ganesh, T. G.** & Reid, J. (2015, December 3). *Teaching the next generation of designers and engineers*. #ED12107. Autodesk University, Las Vegas, NV.
- Kazilek, C. Middleton, J. A., **Ganesh, T. G.**, & Hobson, S. (2014). *Improving student success and retention through active and adaptive learning strategies*. Poster presentation at the Improving the Undergraduate STEM Experience Conference, National Academy of Sciences, Washington, D.C.
- Ganesh, T. G.** (2012, April 25). *Integrated STEM Education: Across the K-12 and Higher Education Settings*. Presentation at Temple University, Philadelphia, PA.
- Ganesh, T. G.** (2012, April 24). *Transdisciplinary Research: Integrating Knowledge to Solve Open-Ended Problems*. Seminar presentation at Temple University, Philadelphia, PA.
- Ganesh, T. G.** (2012, February 11). *Inspiring Learning in Science and Engineering through Personal and Social^[1] Relevance: K-12 to University*. Keynote presentation at the Annual

Awards Banquet of the Institute of Electrical and Electronics Engineers, Phoenix Chapter, Phoenix, AZ.

- Ganesh, T. G.** (2012, January 31). *Re-engineering K-12 schools*. Presentation to the Science Foundation of Arizona program officers, Jan Morrison, Teaching Institute for Excellence in STEM, and Superintendent and staff of Kyrene School District; Tempe, AZ.
- Ganesh, T. G.** (2012, January 10). *Integrated Science, Technology, Engineering, and Mathematics (STEM) Education and Diversity*. The National Academy of Engineering Committee on Integrated STEM Education Second Meeting; Washington, DC.
- Ganesh, T. G.** (2011, September 27). *Girls in Engineering: Shaping our Future*. Presentation to the Governing Board of the Kyrene School District; Tempe, AZ.
- Ganesh, T. G.** (2011, September 11). *What Specific Programmatic Aspects have the Greatest Impact on Youth Involvement in STEM beyond the National Science Foundation's Innovative Technology Experiences for Students and Teachers?* Invited discussant and respondent at the Advancing Research on Youth Motivation in STEM, Education Development Center, Boston College, Boston, MA.
- Ganesh, T. G.** (2007). *Engaging female and Latino youth in informal learning in the Southwestern United States: The role of information and communication technologies (ICT)*. At the International Conference on Technology and Educational Innovation, October 10-12, 2007, Monterrey, Mexico.

CAMPUS PRESENTATIONS/TALKS

- Ganesh, T. G.** (2016). *Keynote: Be Inspired in Ways Unimagined*. International Graduate Student Conference. Graduate Education, Arizona State University.
- Ganesh, T. G.** (2015, 2014). *How Can You Shape the World and Make a Difference?* Adventures in Engineering: Freshman Lecture Series. Ira A Fulton Schools of Engineering, Arizona State University.
- Ganesh, T. G.** (2010). *Habits of Mind for Transdisciplinarity Engagement*. Graduate College, Arizona State University.

OPINION EDITORIALS

- Ganesh, T. G.** (2012, November 5). Embracing diversity and fostering access to science for all. Available: http://asunews.asu.edu/20121105_40_TitleIX_Ganesh
- Ganesh, T. G.** (2008, October 31). In the name of discovery: A call for fundamental transformation in K-12 learning. *ASU Insight*. Tempe, AZ: Arizona State University. Available: http://asunews.asu.edu/20081031_engineering
- Leavy, A. M. & **Ganesh, T. G.** (2000, February 1). The nascent promise of ejournals: Instances of pioneering use of technology. *Current Issues in Education* [On-line], 3(1). Available: <http://cie.ed.asu.edu/volume3/number1/>
- Ganesh, T. G.** & Jennings, T. A. (1999, September 8). Ejournals today: Forerunners of the unrealized potential of the digital medium. *Current Issues in Education* [On-line], 2(1). Available: <http://cie.ed.asu.edu/volume2/number1/>.

EDITED CONFERENCE PROCEEDINGS

- Ganesh, T. G.**, Thieken, J., Malyn-Smith, J., Na'im, A., Ebenezer, J., Blank, G. D. (2009). Implementing Innovative Technologies to Enhance STEM Education in K-12 Settings: What do youth know about and what can they do with technology? 20th Annual proceedings of the Society for Information Technology and Teacher Education (SITE). Charleston, SC: Society for Information Technology.
- Ganesh, T. G.**, & Berliner, D. C. (2005). Practices of computer use in elementary education: Perceived and missed opportunities. In M. Simonson & M. Crawford (Eds.), 28th Annual proceedings: Selected paper presentations at the 2005 Annual Convention of the Association of Educational Communication and Technology Annual Meeting, Volume 2, 214-223. Bloomington, IN: Association of Educational Communication and Technology.
- Ganesh, T. G.**, & Middleton, J. A. (2000). Language as access to mathematics learning and technology in a title I school. In K. E. Sparks & M. Simonson (Eds.), 22nd Annual proceedings: Selected research and development papers presented at the 2000 National Convention of the Association for Educational Communications and Technology, p. 113-128. Columbus, OH: RTS & Associates.
- Ganesh, T. G.**, Glass, G. V., Andrews, S., Middleton, J. A., Jennings, T. A., & Leavy, A. M. (2000) Scholarly electronic journals: Economic and technical issues. In K. E. Sparks & M. Simonson (Eds.), 22nd Annual proceedings: Selected research and development papers presented at the 2000 National Convention of the Association for Educational Communications and Technology, p. 129-136. Columbus, OH: RTS & Associates.

PRESENTATIONS AT PROFESSIONAL MEETINGS, PEER-REVIEWED

- [61] Ferrone, C., **Ganesh, T. G.**, Velez, J., Collofello, J., Squires, K. D. (2020). Does EPICS as a pre-college program foster engineering identity development as correlated to doing engineering? Paper to be presented at the NSF Grantees Poster Session. Proceedings of the American Society of Engineering Education (ASEE) 2020.
- [60] Harris, P., Kurz, T. L., **Ganesh, T. G.**, Dyer, P. (2020). The challenges and successes of recruiting STEM teachers for ASU's Noyce Scholarship Program. Paper presented at the 2020 Annual Association of Mathematics Teacher Educators Conference, 2020, Phoenix, AZ.
- [59] Haolin, Z., **Ganesh, T. G.**, & Sonnier, C. (2019). Studying Changes using Concept Maps in First-Year Students' Understanding of the Engineering Design Process. Presented at the Best of First Year Programs: Best Paper Session. Proceedings of the American Society of Engineering Education (ASEE) 2019 (Paper no. 27035; pp. 1-23). Tampa, FL.
- [58] **Ganesh, T. G.**, Squires, K. D., Collofello, J., Hammond, R., & Ferrone C. (2019). Assessing Interest and Appeal of Engineering in a High School Program Designed to Enhance Entry into Engineering in an INCLUDES project. Presented at the NSF Grantees Poster Session. Proceedings of the American Society of Engineering Education (ASEE) 2019 (Paper no. 32377; pp. 1-11). Tampa, FL.
- [57] **Ganesh, T. G.**, Squires, K. D., Collofello, J., & Hammond, R. (2018). Engineers from Day One (Work in Progress). Proceedings of the American Society of Engineering Education (ASEE) 2018 (Paper no. 23722; pp. 1-12). Salt Lake City, UT.
- [56] Ruth, A., Hackman, J., Spence, T., Velez, J., Parker, H., & **Ganesh, T. G.** (2018). Engineering Projects in Community Service (EPICS) High: Culturally Responsive

- Programing and Learning Outcomes for Underrepresented Students in Arizona. (Work in Progress). Proceedings of the American Society of Engineering Education (ASEE) 2018 (Paper no. 22516; pp. 1-14). Salt Lake City, UT.
- [55] Trowbridge, A., Chen, D., Roldan, J., & **Ganesh, T. G.** (2017). Work in Progress: A qualitative analysis of students' emerging understanding of becoming a Grand Challenge Scholar-Engineer. Proceedings of the 47th ASEE/IEEE Frontiers in Education (FIE) 2017. Columbus, OH.
- [54] **Ganesh, T. G.** (2014). Changing Perceptions about Engineering in a Year-long Girls in Engineering Program. Paper presented at the National Association for Research in Science Teaching, Strand 11: Cultural, Social, and Gender Issues, 2014 Annual International Conference. Pittsburgh, PA.
- [53] **Ganesh, T. G.**, Tracey, T. J. G., & Webber, A. (2014). Assessing changes in investigative skills as an impact of informal science afterschool programming. Paper presented at the National Association for Research in Science Teaching, Strand 6: Science Learning in Informal Contexts Designing Afterschool Programs: What Works and How do we Know, 2014 Annual International Conference. Pittsburgh, PA.
- [52] Foster, C., Crowder, M., & **Ganesh, T. G.** (2013). Work in Progress: Engineering the Human Heart in the Sixth Grade Classroom. Proceedings of the 43rd ASEE/IEEE Frontiers in Education (FIE) 2013. Oklahoma City, OK.
- [51] **Ganesh, T. G.** (2013, April). Engineering pathways to STEM education: Enhancing diversity and inclusive excellence. Paper presented at the American Educational Research Association, Division G, Section 4, Social Context of Educational Policy, Politics, and Praxis, 2013 Annual Meeting, San Francisco, CA.
- [50] **Ganesh, T. G.**, Thieken, J., & Ganesh, A. (2013, April). Sixth grade girls' changing perceptions about engineering and emerging identity as future possible engineers. Paper presented at the American Educational Research Association, Division C, Section 1e: Engineering and Computer Science, 2013 Annual Meeting, San Francisco, CA.
- [49] Foster, C., Crowder, M., Nelson, K., & **Ganesh, T. G.** (2012). Developing engineering systems thinking through the modeling of a complex bioengineering system. Paper presented at the 42st ASEE/IEEE Frontiers in Education (FIE) 2012, October 3-6, 2012, Seattle, WA.
- [48] **Ganesh, T. G.** (2011). Design-based research: A framework for designing novel teaching and learning experiences in middle school engineering education. Paper presented at the 41st ASEE/IEEE Frontiers in Education (FIE) 2011, October 12-15, 2011, Rapid City, SD.
- [47] Zwart, C. M., Ryan, J. R., Houston, J., Brenn, M. K., Mulhern, S., Pierce, C. K., Wang, W., Frakes, D. H., & **Ganesh, T. G.** (2011). A content/design model for K-12 Education: First results with bioengineering in Proceedings of the Biomedical Engineering Society Annual Meeting, October 12-15, 2011, Hartford, CT.
- [46] Puruhito, K., Husman, J., Hilpert, J., **Ganesh, T. G.**, & Stump, G. (2011). Increasing instrumentality without decreasing instructional time: An intervention for engineering students. Paper presented at the 41st ASEE/IEEE Frontiers in Education (FIE) 2011, October 12-15, 2011, Rapid City, SD.
- [45] Walden, S. E. (Chair), Cardella, M., **Ganesh, T. G.**, Klein-Gardner, S., Ernst, J., Lottero-Perdue, Pamela S., Carpinelli, John D., & High, K. (2011). Best Practices in Participant Outcomes Assessment and Project Evaluation. Panel presentation of the K-12 & Pre-

- College Engineering Division of the American Society for Engineering Education, 2011 Annual Conference, June 26-29, 2011, Vancouver, BC, Canada.
- [44] **Ganesh, T. G.**, Thieken, J., Randall, L. S., & Smith, A. (2011). Renewable Energy Internships: Study of Seventh and Eighth Grade Students Knowledge of Related Science and Engineering Content. Paper presented at the National Science Foundation Grantees Poster Session of the American Society for Engineering Education, 2011 Annual Conference, June 26-29, 2011, Vancouver, BC, Canada.
- [43] **Ganesh, T. G.**, Randall, L. S., & Thieken, J. (2011). Designing and Testing Water Filtration Devices using the Engineering Design Process: A Description of an Eighth Grade Curricular Unit on Bioremediation. Paper presented in a session of the K-12 & Pre-College Engineering Division of the American Society for Engineering Education, 2011 Annual Conference, June 26-29, 2011, Vancouver, BC, Canada.
- [42] Thieken, J. & **Ganesh, T. G.** (2011). Analysis of Census Survey of Middle School Students' Knowledge of Engineers and Engineering in a Large Suburban K-8 School District. Paper presented in a session of the K-12 & Pre-College Engineering Division of the American Society for Engineering Education, 2011 Annual Conference, June 26-29, 2011, Vancouver, BC, Canada.
- [41] **Ganesh, T. G.** (2011). Analyzing subject-produced drawings: The use of the draw-an-engineer-assessment in context. Paper presented in a session of the Educational Research Methods Division of the American Society for Engineering Education, 2011 Annual Conference, June 26-29, 2011, Vancouver, BC, Canada.
- [40] **Ganesh, T. G.** & Thieken, J. (2010). Designing and implementing chain reactions: A study of seventh-grade students' knowledge of electrical circuits. Paper presented in a session of the K-12 & Pre-College Engineering Division at the American Society for Engineering Education, 2010 Annual Conference, June 20-23, 2010, Louisville, KY.
- [39] **Ganesh, T. G.** (2010). Informal engineering education: A study of how seventh grade students build robots to mimic specific desert tortoise behaviors. Paper presented in a session of the K-12 & Pre-College Engineering Division at the American Society for Engineering Education, 2010 Annual Conference, June 20-23, 2010, Louisville, KY.
- [38] **Ganesh, T. G.**, Thieken, J., Krause, S., Roberts, C., Baker, D., Taylor, W. L., Kurpius-Robinson, S., Middleton, J., Elser, M. M., & Golden, J. (2010). Learning through Engineering Design and Practice: Implementation and impact of a middle school engineering-education program. Paper presented in the National Science Foundation Grantees Poster Session of the American Society for Engineering Education, 2010 Annual Conference, June 20-23, 2010, Louisville, KY.
- [37] Pizziconi, V., Haag, S., **Ganesh, T. G.**, Cozort, L., Krause, S., Tasooji, A., & Ramakrishna, B. L. (2010). The P3E2 Project: The introduction, implementation, and evaluation of engineering design integrated across the middle school curriculum. Paper presented in the National Science Foundation Grantees Poster Session of the American Society for Engineering Education, 2010 Annual Conference, June 20-23, 2010, Louisville, KY.
- [36] **Ganesh, T. G.** (2010). The draw an engineer: Extending its use from a descriptive to analytical tool. Paper to be presented in a session of the American Educational Research Association, 2010 Annual Meeting, April 30 – May 4, 2010, Denver, CO.
- [35] **Ganesh, T. G.** (2010). Middle school students' perceptions of engineering. Paper presented in a related paper set on Teaching and Learning Engineering in Strand 10: Curriculum,

- Evaluation, and Assessment at the National Association for Research in Science Teaching, 2010 Annual Conference, March 20-24, 2010, Philadelphia, PA.
- [34] **Ganesh, T. G.**, Krause, S., Roberts, C., Taylor, W. L., Baker, D., Kurpius-Robinson, S., Middleton, J., Elser, M. M., & Golden, J. (2010). Learning through engineering design and practice: Using our human capital for an equitable future. Paper presented in a poster session of the National Science Foundation Engineering Education Programs Awardees Conference, January 31-February 2, 2010, Reston, VA.
- [33] Ramakrishna, B., Cozort, L., **Ganesh, T. G.**, Haag, S., Meldrum, D., Pizziconi, V., & Tasooji, A. (2010). Engaging middle school students with engineering education, curricular integration and social relevance. Paper presented in a poster session of the National Science Foundation Engineering Education Programs Awardees Conference, January 31-February 2, 2010, Reston, VA.
- [32] **Ganesh, T. G.**, & Thieken, J. (2010, August). Learning through engineering design and practice: Description of a middle school engineering education program experience and student assessment of content knowledge. P-12 Engineering and Design Education Research Summit, 2010. Seaside, OR: Institute for P-12 Engineering Research and Learning, Purdue, University.
- [31] **Ganesh, T. G.**, Jessup, P., & Parsons, B. (2009). Using research and evaluation to encourage sustainability of the Learning through Engineering Design and Practice (LEAP) program. Paper presented in a session of the American Evaluation Association, 2009 Annual Conference, November 11-14, 2009, Orlando, FL.
- [30] **Ganesh, T. G.**, Thieken, J., Elser, M., Baker, D., Krause, S., Roberts, C., Kurpius-Robinson, S., Middleton, J., & Golden, J. (2009). Eliciting underserved middle-school youths' notions of engineers: draw an engineer. Paper presented in a session of the K-12 & Pre-College Engineering Division at the American Society for Engineering Education, 2009 Annual Conference, June 14-17, 2009, Austin, TX.
- [29] **Ganesh, T. G.**, & Thieken, J. (2009). Understanding the impact of a year-round informal learning program: Learning through Engineering Design and Practice. Paper presented in a paper session of the Division C-Learning and Instruction, Section 5: Learning Environments at the American Educational Research Association, 2009 Annual Meeting, April 13-17, 2009, San Diego, CA.
- [28] **Ganesh, T. G.**, Thieken, J., Elser, M., Baker, D., Krause, S., Roberts, C., Kurpius-Robinson, S., Middleton, J., & Golden, J. (2009). Eliciting underserved middle-school youths' notions of engineers: Draw an Engineer. Paper presented at a paper discussion session of the Division B-Curriculum Studies, Section 5: Studies in History and Philosophy at the American Educational Research Association, 2009 Annual Meeting, April 13-17, 2009, San Diego, CA.
- [27] **Ganesh, T. G.**, Thieken, J., Malyn-Smith, J., Na'im, A., Ebenezer, J., Blank, G. D. (2009). Implementing Innovative Technologies to Enhance STEM Education in K-12 Settings: What do youth know about and what can they do with technology? Paper presented in a panel presentation at the Society for Information Technology & Teacher Education, 2009 Annual Conference, March 2-6, 2009, San Charleston, SC.
- [26] **Ganesh, T. G.**, & Ganesh, A. (2008). Research on broadening the appeal of robotics in informal learning. Paper presented in a paper discussion session of the Special Interest Group: Informal Learning Environments Research at the American Educational Research Association, 2008 Annual Meeting, March 24-28, 2008, New York, NY

- [25] Ganesh, A. & **Ganesh, T. G.** (2007) A view of private pre-primary education for the urban poor in India. Paper presentation in a session titled 'The School and The City' International Visual Sociology Association, 2007 Conference, August 10-12, 2007, New York, NY.
- [24] **Ganesh, T. G.**, Ganesh, A., & McCullum, C. (2007). A study of learning affordances of a children's museum exhibit component: The distance speedway. Paper presented in a paper session titled 'Learning in Museums and Out of School' of the Division C-Learning and Instruction, Section 5: Learning Environments at the American Educational Research Association, 2007 Annual Meeting, April 9-13, 2007, San Francisco, CA.
- [23] Ganesh, A., **Ganesh, T. G.**, Jones, T. A., Kirby, A. Z., & Wright, L. (2007). Parent partnerships in student education through the children's museum. Poster session of the Division C-Learning and Instruction, Section 5: Learning Environments at the American Educational Research Association, 2007 Annual Meeting, April 9-13, 2007, San Francisco, CA.
- [22] **Ganesh, T. G.** (2007). Learning from a teacher's narrative: From 1960s Selma, Alabama, to 2000s suburban Arizona. Paper presented at a paper discussion session of the Special Interest Group: Arts-Based Educational Research at the American Educational Research Association, 2007 Annual Meeting, April 9-13, 2007, San Francisco, CA.
- [21] **Ganesh, T. G.** (2006). Why share proposals with school-based partners? Paper presented in a paper discussion session titled 'Epistemology and Collaborative Inquiry: Defensible Decisions? Warrantable Conclusions?' of the Special Interest Group: Portfolios and Reflection in Teaching and Teacher Education at the American Educational Research Association, 2006 Annual Meeting, April 11-15, 2006, San Francisco, CA.
- [20] McNeil, S. & **Ganesh, T. G.** (2006). Visualizing mental models: Understanding cognitive change to support teaching and learning of multimedia design and development. Paper presented in a paper discussion session of the Special Interest Group: SIG-Technology, Instruction, Cognition & Learning in Teaching and Teacher Education at the American Educational Research Association, 2006 Annual Meeting, April 11-15, 2006, San Francisco, CA.
- [19] Chiappetta, E. E., **Ganesh, T. G.**, Lee, Y., & Phillips, M. C. (2006). Examination of science textbook analysis research conducted on textbooks published over the past 100 years in the United States. Paper presented at the National Association for Research in Science Teaching, 2006 Annual Meeting, April 3-5, 2006, San Francisco, CA.
- [18] **Ganesh, T. G.** (2005). Practices of computer use in elementary education: Perceived and missed opportunities. Paper presented in a symposium session of the Research and Theory Division at the Association of Educational Communication and Technology (AECT) 2005 Annual Convention, October 17-22, 2005, Orlando, FL.
- [17] **Ganesh, T. G.** & Berliner, D. C. (2005). Practices of computer use in elementary education: Perceived and missed opportunities. Paper presented in a session of the Special Interest Group: Learning and Instruction with Computers. European Association for Research on Learning and Instruction, Biennial Conference, August 23-27, 2005, Nicosia, Cyprus
- [16] **Ganesh, T. G.** & Middleton, J. A. (2005). Challenges in linguistically and culturally diverse elementary settings with math instruction using learning technologies. Paper presented in a session of the Division K—Teaching and Teacher Education, Section 1—Research on Teaching Practices, Teacher Knowledge, and Teacher Education in Math and Science at

- the American Educational Research Association, 2005 Annual Meeting, April 11-15, 2005, Montreal, Canada.
- [15] **Ganesh, T. G.** (2005). The case of the school district's educational technologist as the classroom teacher. Paper presented in a session of the Division C—Learning & Instruction, Section 5—Learning Environments at the American Educational Research Association, 2005 Annual Meeting, April 11-15, 2005, Montreal, Canada.
- [14] **Ganesh, T. G.** (2004). Teachers' visual representations of the impact of high-stakes tests: Making meaning of visual data. Paper presented in a session at the Critical Discourse Analysis Conference, May 21-23, 2004, Indiana University, Bloomington, Indiana.
- [13] **Ganesh, T. G.** (2004). Practices of computer use in elementary education: Perceived and missed opportunities. Paper presented in a session of the Division G—Social Context of Education, Section 1—Local Contexts of Teaching and Learning at the American Educational Research Association, 2004 Annual Meeting, April 12-16, 2004, San Diego, CA.
- [12] **Ganesh, T. G.** (2003). The gendered nature of educators' visual representations of their feelings. Paper presented at a session of the Special Interest Group—Arts Based Approaches to Educational Research at the American Educational Research Association, 2003 Annual Meeting, April 21-25, 2003, Chicago, IL
- [11] **Ganesh, T. G.** (2002). Educators' images of high stakes testing: An exploratory analysis of the value of visual methods. Paper presentation in a session of the Division B—Curriculum Studies, Section 2: Curriculum Theory at the American Educational Research Association, 2002 Annual Meeting, April 1-5, 2002, New Orleans, LA.
- [10] **Ganesh, T. G.** (2002). Recent trends in scholarly electronic journals in education. Paper presentation in a session of the Special Interest Group: Communication of Research at the American Educational Research Association, 2002 Annual Meeting, April 1-5, 2002, New Orleans, LA.
- [9] Dicerbo, K. E., **Ganesh, T. G.**, & Stockford, S. (2002). Exploring notions about electronic journals as social and cognitive tools. Paper presentation in a session of the Division C—Learning and Instruction at the American Educational Research Association, 2002 Annual Meeting, April 1-5, 2002, New Orleans, LA.
- [8] Ganesh, A. & **Ganesh, T. G.** (2001). Case Study: Cholla-A “brain compatible” learning environment? Poster session of Division B—Curriculum Studies, Section 2: Curriculum Theory at the American Educational Research Association, 2001 Annual Meeting, April 10-14, 2001, Seattle, WA.
- [7] **Ganesh, T. G.** (2001). Developing an online scholarly journal. Paper presented at a roundtable session of the Special Interest Group: Communication of Research at the American Educational Research Association, 2001 Annual Meeting, April 10-14, 2001, Seattle, WA.
- [6] **Ganesh, T. G.** (2001). Non-Standard young individuals and their teacher in a world of standards and standardized tests. Paper presentation at a roundtable session of the Special Interest Group: Arts-Based Educational Research at the American Educational Research Association, 2001 Annual Meeting, April 10-14, 2001, Seattle, WA.
- [5] **Ganesh, T. G.** & Middleton, J. A. (2000). Disadvantaged students' access to powerful learning technology in mathematics. Paper presentation in a session of the Topic Study Group #15: Mathematics Education of Students with Special Needs at the 9th International Congress on Mathematical Education July 31-Aug. 6, 2000, Tokyo, Japan.

- [4] **Ganesh, T. G.** & Middleton, J. A. (2000). Equitable access to powerful learning technology in mathematics: A conflict of interest in a Title I school. Paper presentation in a session of the Division C—Learning and Instruction, Section 2: Mathematics, at the American Educational Research Association, 2000 Annual Meeting, April 23-29, 2000, New Orleans, LA.
- [3] **Ganesh, T. G.** (2000). E-journals in education: Hype or living up to their promise? Paper presentation in a symposium session on ‘Scholarly Electronic Communication and the Challenges of Creating Digital Archives’ of the Special Interest Group: Information Technology and Library Resources at the American Educational Research Association, 2000 Annual Meeting, April 23-29, 2000, New Orleans, LA.
- [2] **Ganesh, T. G.,** & Middleton, J. A. (2000). Language as access to mathematics learning and technology in a title I school. Paper presentation at a session of the Division of Research & Theory at the Association of Educational Communication and Technology (AECT) 2000 Annual Convention, February 16-18, 2000, Long Beach, CA.
- [1] **Ganesh, T. G.,** Glass, G. V., Andrews, S., Middleton, J. A., Jennings, T. A., & Leavy, A. M. (2000). Scholarly electronic journals: Economic and technical issues. Paper presentation at a session of the Division of Research & Theory at the Association of Educational Communication and Technology (AECT) 2000 Annual Convention, February 16-18, 2000, Long Beach, CA.

SELECTED TECHNICAL REPORTS

- Bureau of Educational Research & Services. (1993-1999). School management information data: Arizona public school districts. Tempe, AZ: Arizona State University (with M. A. Mangini & others).
- Bureau of Educational Research & Services. (1998, December). Demographic Study, Creighton Elementary School District. Tempe, AZ: Arizona State University (with M. A. Mangini & others).
- Bureau of Educational Research & Services. (1998, August). Pupil Population Projection, Ft. McDowell Indian Community. Tempe, AZ: Arizona State University (with M. A. Mangini & others).
- Bureau of Educational Research & Services. (1998, March). Pupil Population Projection, Madison Elementary School District. Tempe, AZ: Arizona State University (with M. A. Mangini & others).
- Bureau of Educational Research & Services. (1997, July). Follow-Up Study: Eighth Grade Class of 1990, Glendale Elementary School District. Tempe, AZ: Arizona State University (with M. A. Mangini & others).
- Mangini, M. A. & **Ganesh, T. G.** (1995). Statistical Profile of Arizona Public School Districts. In Making the Grade: 1995 Report for the Annual Arizona Town Hall.

TEACHING EXPERIENCE—ARIZONA STATE UNIVERSITY

- Introduction to Engineering, FSE 100 (undergraduate) —Fall 2011, Fall 2013, Fall 2014, Fall 2015, Fall 2016, Fall 2017, Fall 2018, Fall 2019
- Build Your Engineering Future, FSE 194 (undergraduate) –Spring 2016, Fall 2018, Spring 2019, Fall 2019

Pre K-12 Engineering Education Internship, FSE 194/FSE 598 (undergraduate, graduate) —
Spring 2014, Fall 2014, Spring 2015, Fall 2015
Engineering Projects in Community Service, EPICS GOLD, FSE 104 (undergraduate) —Spring
2015
Engineering Design for Teachers, STM 591/ENE 505, (graduate) —Spring 2010, Spring 2011,
Spring 2012, Spring 2016
Advanced Research Methods in Engineering Education, ENE 704, (graduate) —Spring 2012
Research Methods in Engineering Education, ENE 703, (graduate)—Fall 2011
Fundamentals of Engineering Education, ENE 701, (graduate) —Fall 2011
Graduate K-12 STEM Education, GRD 598 (graduate) —Spring 2010, Fall 2010, Spring 2011,
Fall 2011, Spring 2012
Interdisciplinary Research Seminar, DCI 702 (graduate) —Fall 2009, Fall 2010
Introduction to Research and Evaluation in Education, COE 501 (graduate) —Summer 2004,
Fall 2006, Spring 2007, Spring 2008, Fall 2008, Fall 2010, Spring 2012
The ASU Experience: Becoming a Teacher, ASU 101 (undergraduate) —Spring 2008, Fall 2008
Integrating Technology in Math and Science Education, ECD/DCI 598 (graduate) —Summer
2004
Assessment and Evaluation of Media Applications, EDC 506 (graduate) —Spring 2004
Electronic Journals for Scholarly Communication of Research, DCI 598 (graduate) —Fall 2000,
Spring 2001
Computers in Educational Administration, EDA 507 (graduate) —Spring 1997
Introduction to Computer Science and Engineering, CSE 100 (undergraduate) —Fall 1991,
Spring 1992, Fall 1992, Spring 1993, Fall 1993, Spring 1994
Computer Literacy, CSC 180 (undergraduate) —Fall 1991, Spring 1992

K-12 Courses

Engineering Design, Grade 7, three-sections (52 students), Aprende Middle School, Kyrene
School District; Spring 2011
College for Kids: Engineering Human Needs: Water and Energy! Grades 6-8, Ira A Fulton
Schools of Engineering; With Christina Foster, Graduate Student, Summer 2011
Infinite Images: Adobe Photoshop and Adobe Premiere, Ages 10-16, Center for Academic
Precocity; Spring 1998
Academic Discovery: Digital Worlds, Ages 8-10, Center for Academic Precocity; Summer 1997

TEACHING EXPERIENCE—UNIVERSITY OF HOUSTON

Integrating Technology into the Curriculum, CUIN 6345, (graduate) —Summer 2006
Information Technologies for Adolescents, CUIN 3313, (undergraduate) —Fall 2004,
Spring 2005, Fall 2005, Spring 2006
Advanced Seminar in Instructional Technology, CUIN 8352, (graduate) —Fall 2005
Instructional Technologies for STEM Education, CUIN 6397, (graduate) —Fall 2005
Conducting Technology-Based Classroom Research, CUIN 8397, (graduate) —Spring 2005
Electronic Document Design, CUIN 7316, (graduate) —Fall 2004

K-12 Courses

Introduction to Robotics, Community Science Workshop, Edison Middle School, Houston
Independent School District, Grades 6-8, With Andrea Hernandez, Children's Museum of
Houston —Fall 2005, Spring 2006

TEACHING EXPERIENCE—UNIVERSITY OF MYSORE, INDIA

National Institute of Engineering, Computer Science & Engineering (undergraduate)	
Information System Design, Fall 1989	Programming in Pascal, Spring 1990
Computer Systems, Fall 1989	Programming in COBOL, Spring 1990
Programming: Basic, FORTRAN, Fall 1989	Computer Systems, Fall 1990
Computational Methodology, Fall 1989	Programming in C, Fall 1990
Computer Graphics, Spring 1990	Microprocessor Applications (Intel 8085, 8086), Fall 1990
Microprocessors, Spring 1990	

STUDENT MENTORSHIP ACTIVITIES—Arizona State University

Undergraduate Research, Advisor

Angel Armenta, Chemical Engineering

Spring 2015 Grand Challenge Scholar Research Awardee, Fall 2015 & Spring 2016
Fulton Undergraduate Research Initiative Awardee—*Desalination as a Solution to the
Grand Challenge of Providing Access to Clean Water.*

Daniel Bueno, Chemical Engineering

Spring 2016 Fulton Undergraduate Research Initiative Applicant—*Enhancing the Profile
of Chemical Engineers as Relevant to Society amongst Middle School Students.*

Diana Chen, Computer Science

Spring 2017 Grand Challenge Scholar Research Awardee & Fall 2017, Spring 2018
Fulton Undergraduate Research Initiative Awardee—*Enhancing Interdisciplinary
Thinking in Co-Curricular Programs*, with Amy Trowbridge as Lead-Advisor.

Victoria Hernandez, Chemical Engineering

Spring 2015 Grand Challenge Scholar Research Awardee—*Review of Membrane
Technology for Water Treatment: Materials, Costs, and Benefits.*

Evelyn Holguin, Mechanical Engineering

Spring 2017 Fulton Undergraduate Research Initiative Applicant—*Engineering
Mechanical Adventures: A Young Engineer's Journey to Success.*

Rebecca Mercer, Industrial Engineering

Spring 2015 Grand Challenge Scholar Research Awardee—*Understanding Seasonal
Changes in Water Quality in Tempe, Arizona.*
Fall 2015 & Spring 2016 Fulton Undergraduate Research Initiative Awardee—*Drinking
Water Quality, Management, and Distribution in Arizona.*

Jorge Roldan, Computer Science

Spring 2017 Grand Challenge Scholar Research Awardee & Fall 2017 Fulton
Undergraduate Research Initiative Awardee—*Understanding Becoming a Grand
Challenge-Scholar Engineer*, with Amy Trowbridge, Lead-Advisor.

Daniel Roman, Civil Engineering

Spring 2015 Grand Challenge Scholar Research Awardee—*Identifying Issues Related to*

Water Infrastructure and Developing Resilient Systems.

Connor Sonnier, Computer Science

Spring 2020 Fulton Undergraduate Research Initiative Awardee—Quantifying Students' Understanding of the Engineering Design Process, with Haolin Zhu as Lead-Advisor.

Swetha Swaminathan, Biomedical Engineering

Fall 2015 Grand Challenge Scholar Research Awardee and Spring 2016 Fulton Undergraduate Research Initiative Awardee—*Project Build-a-Hero: Enhancing Biomedical Engineering as a Socially Relevant Discipline.*

Martha Weber, Civil Engineering

Spring 2015 Grand Challenge Scholar Research Awardee—*Biosand Filtration and Providing Potable Water to Developing Communities.*

Honors Thesis Director

Daniel Bueno (May 2017), Bachelor of Science in Engineering, Chemical Engineering, School for Engineering of Matter, Transport, and Energy.

Diana Chen (May 2019), Bachelor of Science in Engineering, Computer Science, School of Computing, Informatics and Decision Systems Engineering.

Guneet Gulati (May 2016), Bachelor of Science, Biological Sciences (Genetics, Cell, & Developmental Biology), School of Life Sciences.

Erin Huber (May 2018), Bachelor of Science in Engineering, Mechanical Engineering, School for Engineering of Matter, Transport, and Energy.

Michael Kim (May 2016), Bachelor of Science, Biophysics, School of Liberal Arts & Sciences

Alison Llave (May 2017), Bachelor of Science in Engineering, Biomedical Engineering, School of Biological and Health Systems Engineering.

Kenna Lum (May 2017), Bachelor of Science in Engineering, Biomedical Engineering, School of Biological and Health Systems Engineering.

Dirk Marshall, (May 2017), Bachelor of Science in Engineering, Biomedical Engineering, School of Biological and Health Systems Engineering.

Rebecca Mercer (May 2017), Bachelor of Science in Engineering, Industrial Engineering, School of Computing, Informatics and Decision Systems Engineering.

Amanda Ngyuen (May 2018), Bachelor of Science in Engineering, Biomedical Engineering, School of Biological and Health Systems Engineering.

Timothy Otis (May 2019), Bachelor of Science in Engineering, Chemical Engineering, School for Engineering of Matter, Transport, and Energy.

Syed Ridhwaan (May 2017), Bachelor of Science in Engineering, Computer Systems Engineering, School of Computing, Informatics and Decision Systems Engineering.

Jorge Roldan (May 2018), Bachelor of Science in Engineering, Computer Science, School of Computing, Informatics and Decision Systems Engineering.

Swetha Swaminathan (May 2016), Bachelor of Science in Engineering, Biomedical Engineering, School of Biological and Health Systems Engineering.

Kayla Tapia (May 2020), Bachelor of Science in Engineering, Chemical Engineering, School for Engineering of Matter, Transport, and Energy.

Nikki Tran (May, 2020), Bachelor of Science in Engineering, Computer Science, School of Computing, Informatics and Decision Systems Engineering.

Aimen Vanood (May 2016), Bachelor of Science in Engineering, Biomedical Engineering, School of Biological and Health Systems Engineering.

Honors Thesis Second Reader

Daniel Mangu, (December 2017), Bachelor of Science in Engineering, Mechanical Engineering, School for Engineering of Matter, Transport, and Energy.
Beatris Rusu, (December 2011), Bachelor of Science in Engineering, Computer Science, School of Computing, Informatics and Decision Systems Engineering.
Tony Tipton, (May 2020), Bachelor of Science in Engineering, Computer Systems Engineering, School of Computing, Informatics and Decision Systems Engineering.

Masters Degree Graduates

Bojana Djukovic Barakovic, Master of Education, Language and Literacy, 2007, Chair: Beatriz Arias, Committee member: Tirupalavanam Ganesh
Jessica Hunsdon, Master of Education, Science Education, 2009, Chair: James A. Middleton, Committee members: Tirupalavanam Ganesh
Jeong Oak Yun, Master of Education, Mathematics Education, 2008, Chair: Finbarr Sloane, Committee members: Tirupalavanam Ganesh, James A. Middleton

Doctoral Program Advisor

Garth Cupp, Doctor of Education, Science Education, December 2014
Christina Hobson, Doctor of Philosophy, Curriculum and Instruction, Engineering Education [August 2016]
Omowunmi Isaacs-Sodeye, Master of Arts, Curriculum and Instruction, Engineering Education, August 2012
Meghan Kenney, Doctor of Education, Science Education, May 2013
Patrick Schwab, Doctor of Philosophy, Curriculum and Instruction, Engineering Education, May 2014
Carl Whitesal, Doctor of Philosophy, Curriculum and Instruction, Engineering Education, August 2014

Doctoral Graduates

Cheryl Berg, Doctor of Philosophy in Science Education, August 2010, Dissertation: Teaching for Conceptual Change: An Intervention to Promote Deeper Understanding of Diffusion and Osmosis, Chair: Dale R. Baker. Committee members: Tirupalavanam Ganesh, Mary C. Walton
Elodie Billionniere, Doctor of Philosophy in Computer Science, December 2011, Dissertation: Analysis of Algorithm Design and Problem Solving in Relation to the Core Computational Concepts, Co-Chairs: Tirupalavanam Ganesh and James Collofello. Committee members: Kurt VanLehn, Winslow Burleson
Tami Coronella, Doctor of Education in Higher and Postsecondary Education, May 2018, Dissertation: The Characteristics and Experiences of Successful Undergraduate Latina Students Who Persist in Engineering, Chair: Lisa R. McIntyre, Committee members: Tirupalavanam Ganesh, Maria Hesse
Lori M. Ellingford, Doctor of Philosophy in Educational Psychology (Learning), May 2012, Dissertation: Education Scholars' Perceptions and Practices Toward Open Access Publishing, Chair: Sarah Brem, Committee member: Mary Dugan, Tirupalavanam Ganesh, Jenefer Husman

- Courtney Hart, Doctor of Philosophy, Curriculum and Instruction, Special Education, May 2014
Dissertation: "Are you pondering what I'm pondering?" Self-identity and Gifted Adolescents, Co-Chairs: Tirupalavanam Ganesh, Eric Margolis, Committee member: Jennifer Sandlin
- Jacquelyn E. Kelly, Doctor of Philosophy in Science Education, May 2012, Dissertation: Understanding the Role of Academic Language Acquisition on Conceptual Understanding in Introductory Materials Engineering, Chair: Dale R. Baker, Committee members: Tirupalavanam Ganesh, Steve Krause
- Shannon Riley, Doctor of Philosophy in Early Childhood Education, August 2012, Dissertation: The Evolution of Play in Public School Kindergarten Classrooms, Co-chairs: Tirupalavanam Ganesh and Elaine Surbeck, Committee members: James Christie, Rebecca Stahlman
- Carrie Robinson, Doctor of Education in Higher and Postsecondary Education, May 2012, Dissertation: The Characteristics and Experiences of Successful Undergraduate Latina Students Who Persist in Engineering, Chair: Lisa R. McIntyre, Committee members: Tirupalavanam Ganesh, Maria Hesse
- John Thieken, Doctor of Philosophy in Mathematics Education, August 2012, Dissertation: Engineering-Based Problem Solving Strategies In AP Calculus: An Investigation Into High School Student Performance On Related Rate Free-Response Problems, Chair: Tirupalavanam Ganesh, Committee members: Finbarr Sloane, James A. Middleton
- Stephanie Touchman, Doctor of Philosophy in Science Education, May 2012, Dissertation: Differences that Make a Difference: A Study in Collaborative Learning, Chair: Dale R. Baker, Committee members: Tirupalavanam Ganesh, Michael Rosenberg
- Lorelei Wood, Doctor of Philosophy, Science Education, August 2013, Dissertation: *Representing Chemistry: How Instructional Use of Mode Influences Student Conceptual Understanding in Chemistry*. Chair: Dale R. Baker, Committee members: Tirupalavanam Ganesh, Colleen Megowan-Romanowicz, Sujatha Krishnaswamy.

STUDENT MENTORSHIP ACTIVITIES—University of Houston

Dissertation Committee Member, 2004 - 2006

Beth Bos, Mathematics Education	Georgette Michko, Instructional Technology
Bulent Dogan, Instructional Technology	Marianne Phillips, Science Education
Isidro Grau, Instructional Technology	A. Dale Taggart II, Science Education
Amber Huang, Instructional Technology	

Doctoral Candidacy Paper Committee Member, 2004 - 2006

Alysa Cozart, Instructional Technology	Katherine Waller, Instructional Technology
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Doctoral Program Advisees, 2004 - 2006

Juan Pablo Barrio, Instructional Technology	Juan Jose Perez, Instructional Technology
Justin Burris, Instructional Technology	

Masters Degree Program Advisees, 2004 - 2006

Elena Northrup, Instructional Technology	Alex D. Jones, Instructional Technology
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SERVICE

- Member, Personnel Committee, Academic & Student Affairs, Ira A Fulton Schools of Engineering, 2015 – to date
- Reviewer, National Science Foundation, Division for Research on Learning in Formal and Informal Settings, Arlington, VA, 2007 - to date
- Reviewer, Teaching and Teacher Education (TATE), 2012 - to date
- Reviewer, Education Policy Analysis Archives (EPAA), 2011 - to date
- Reviewer, Journal of Pre-College Engineering Education, 2011 - to date
- Reviewer, Frontiers in Education, Annual Meeting, American Society for Engineering Education/Institute of Electrical and Electronics Engineering, 2011 – to date
- Reviewer, American Society for Engineering Education, Annual Meeting, 2009 - to date
- Reviewer, American Educational Research Association, Annual Meeting, 2003 - to date
- Advisory Board Member, Institute of Electrical and Electronics Engineers, Phoenix Chapter, Engineers in the Classroom program, 2011– to date
- Member, Next Generation Science Standards for Today’s Students and Tomorrow’s Workforce, Arizona Department of Education & achieve.org, 2011-2013
- Member, Energy Education Committee of the Energy Meta Plan, Arizona State University, 2010-2011
- Design of e-Space for Ira A Fulton Schools of Engineering, Arizona State University. 2010
- Review Panel Member, Evaluation Tools for Engineering Education Research, Engineering Education Research Center, Washington State University, 2009
- Member, Provost’s STEM Education Workgroup, Arizona State University. 2008, 2009
- Member, Engineering Pathways Initiative Taskforce, Arizona STEM Education Center, Phoenix. 2008, 2009
- Member, Quality Assurance Team, Commission on International and Trans-Regional Accreditation. Final Accreditation visit to Darshanam Sanskrit Mahavidyalaya and Shree Swaminarayan Gurukul Vishwavidya Pratishthanam, Ahmedabad, Gujarat, India. With Donald Enz, Director, AdvancED Arizona and Randy Venable Sinisi, Executive Director, Commission on International and Trans-Regional Accreditation. 2008
- Co-Chair and Member Working Committee, Teacher Preparation Research & Evaluation Project (TPREP), Arizona State University, Tempe, AZ. With Co-chairs: Mari Koerner, Dean; Audrey Beardsley, Assistant Professor, Mary Fulton Teachers College. 2007, 2008
- Member, Teacher Development Council, Arizona State University, Tempe, AZ. 2006–2009
- Member, Education Committee, Invention Convention Exhibit Advisory Committee, Children’s Museum of Houston, Houston, TX, 2005, 2006
- Member, American Educational Research Association (AERA) Technology Committee, Washington D.C. 2002–2005
- Member, Electronic Thesis and Dissertation Task Force, Graduate College, Arizona State University, Tempe, AZ, 2001
- Member, Martin Luther King, Jr. Celebration Committee, Arizona State University, Tempe, AZ, 1997, 1998
- Co-director, State level Public Forum in support of public schools "Do We Still Need Public Schools?" (Sponsored by the Arizona chapters of Phi Delta Kappa and Arizona Parent Teachers Association), Tempe, Arizona, 1996
- Facilitator, National Forum "Do We Still Need Public Schools?" Phi Delta Kappa International, Bloomington, Indiana, 1996

HONORS AND AWARDS

- First Place Awardee, 2019 American Society for Engineering Education, Best Card Competition on EngineeringUnleashed.com with Haolin Zhu for the paper, “Concept Mapping, a Tool for Assessment of First Year Students’ Understanding of the Design Process”, 2019
- Invited Speaker, National Academy of Engineering, Washington, D.C., The National Academy of Engineering Committee on Integrated STEM Education Second Meeting, 2012
- Awardee for National Science Foundation project, Learning through Engineering Design and Practice, Arizona Business and Education Coalition’s “Best Practices” in Business-Education Partnerships Award for the Best Emerging Partnership category. With the Salt River Project, Mesa Public Schools, 2009
- Finalist for National Science Foundation project, Learning through Engineering Design and Practice, Arizona Business and Education Coalition’s “Best Practices” in Business-Education Partnerships Award for the Science Technology Engineering and Mathematics education category. 2009
- Outstanding Paper, National Association for Research in Science Teaching: Chiappetta, E. E., Ganesh, T. G., Lee, Y, & Phillips, M. C. (2006). Examination of science textbook analysis research conducted on textbooks published over the past 100 years in the United States. 2007
- Participant, New Faculty Seminar, American Educational Research Association, Division B Curriculum Studies. 2005
- Recipient, Dean’s Excellence Award, Significant Accomplishment, Mary Lou Fulton College of Education, Arizona State University, 2003
- Recipient, Gerald Howard Read International Travel Scholarship, [\$2,500], Phi Delta Kappa International, 2001-2002
- Participant, Graduate Student Seminar—From Entry to Exit: Doing Meaningful Research, American Educational Research Association, Division G Social Context of Education, 2001
- Participant, Graduate Student Seminar, American Educational Research Association, Division C Learning & Instruction, 1999
- Recipient, Rotary Youth Leadership Awards, Rotary International District 318, 1985, 1986

PROFESSIONAL SOCIETY MEMBERSHIPS AND LEADERSHIP POSITIONS

- American Educational Research Association (AERA)
- Co-Chair & Program Chair, Special Interest Group, Communication of Research, 2008-2010
 - Member, Special Interest Group, Informal Learning Environment Research, 2007-date
 - Treasurer, Special Interest Group, Communication of Research, 2000-2001
 - Webmaster, Special Interest Group, Communication of Research, aera-cr.asu.edu, 1999-2008
 - Founder Member, Co-Chair, Special Interest Group, Communication of Research, 1999-2000
 - Member, Division B Curriculum Studies, Division C Learning and Instruction, 1998-date
- American Society for Engineering Education (ASEE), Member, 2006-date
- Phi Delta Kappa (PDK), Member, 1995-2006
- President, Arizona State University Chapter 0076, 1998-2000
 - Vice President, Membership, Arizona State University Chapter 0076, 1996-1998
 - Member, Steering Committee, Arizona Future Educators Institute, 1996–2003

PERSONAL

Married Annapurna Narayan, 1993. Annapurna obtained her Doctor of Philosophy in Curriculum and Instruction (Early Childhood Education) in 2004 from Arizona State University. Annapurna is Residential Faculty in Early Childhood Education, Child & Family Studies, Mesa Community College, Maricopa County Community College District, Arizona.

4/27/2020