



# VANASHRI NARGUND-JOSHI, PH.D.

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College of Arts and Science  
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## SKILLS

Strategic Leadership | Project Management | Grant Writing and Fundraising |  
STEM Curriculum Development | Community Outreach and Partnership  
Development | Program Evaluation and Improvement

## PROFESSIONAL SUMMARY

Dynamic and results-focused STEM Pathways Leader with extensive experience fostering educational and career opportunities in Science, Technology, Engineering, and Mathematics (STEM). Experienced in project management, curriculum development, and community outreach, with a history of leading successful initiatives that promote STEM education and career readiness. Committed to creating inclusive and engaging learning environments.

## RECENT CAREER HIGHLIGHTS & LEADERSHIP EXPERIENCE (PAST 5 YEARS)

### Involvement in Liberty STEM Alliance, NJ.

Liberty STEM Alliance is a part of the New Jersey STEM Pathways Network, a strategic public-private alliance that was established in 2014 by the New Jersey Office of the Secretary of Higher Education to define and guide a STEM vision for cradle to career pathways in New Jersey.

- **2020- Lead for Liberty STEM Alliance:** Organized and conducted multiple STEM workshops and camps in collaboration with community partners and educational institutions.
- Honored as an “I can STEM” role model by the New Jersey STEM Pathways Network in 2021.
- Received STEM Educator of the Year Award from the Research & Development Council of New Jersey in 2020.

### Involvement through NJCU:

Placement Coordinator, Science & Math (2013 – 2022)

Coordinated & supervised field experiences & clinical practices for pre-service science teachers, fostering practical & instructional skills. Secured funding and grants for various STEM education projects and workshops.

Developed and managed interdisciplinary STEM programs to enhance student engagement and industry readiness.

### Involvement in Association for Science Teacher Education (ASTE) to drive key STEM education research and initiatives:

2023-2024: **Executive Board Member:**

2021-2024: **Publications Committee Co-chair**

2021-2023: **Board Member at Large** (Elected Position)

2019-2021: **Associate Editor**, Journal of Science Teacher Education, is the flagship journal of the Association for Science Teacher Education. It serves as a forum for disseminating high quality research and theoretical position papers concerning preservice and in-service education of science teachers.

### Community Outreach

2019 – present: **Founder, The Parent Academy:** Research in Practice Platform to support and educate families by eliminating the barriers between parent and the child’s education.

Successfully managed and executed numerous STEM camps, workshops, and community outreach programs, such as “Nutrition and Me series” and “Chickenology” workshops.

## CERTIFICATIONS

- Secondary School Teaching Certificate (INDIA).  
Endorsements: Science, Geography Grades 6-12
- Nutrition Specialist, American Academy of Sports Dietitian and Nutritionists (AASDN)

## EXPERIENCE

- JULY 2018 -** ○ **Associate Professor**  
Department of Biology (& Elementary and Secondary Education Department)  
New Jersey City University, Jersey City
- 2013 - 2018** ○ **Assistant Professor**  
Department of Biology (& Elementary and Secondary Education Department)  
New Jersey City University, Jersey City
- 2012 - 2013** ○ **Postdoctoral Research Associate**  
Interdisciplinary Science and Engineering Partnership (ISEP) at The University at Buffalo (UB),  
State University of New York  
A program focused on developing middle and high school teachers' Pedagogical Content Knowledge (PCK) in interdisciplinary science inquiry through a professional development in science and engineering.

## EDUCATION

- 2006 – 2012** ○ ***Ph.D., Science Education***  
Curriculum and Instruction Department Curriculum and Instruction Department, Indiana University -  
Bloomington, Indiana.  
**Dissertation Chair:** Dr. Valarie Akerson , **Dissertation Director:** Dr. Meredith Park Rogers  
**Dissertation title:** *An Exploration Of The Science Teaching Orientations Of Indian Science Teachers In The Context Of Curriculum Reform.*
- 2005 – 2006** ○ ***Bachelors of Education (B.Ed.),***  
Adarsha Comprehensive College of Education and Research, Pune, India  
(Secondary Teaching Certification)
- 2003 – 2005** ○ ***Master of Sciences, (M.Sc.)***  
Department of Zoology, University of Pune, Pune, India.  
**Thesis title:** "Midgut Microflora from Aedes Aegypti: Identification and Characterization."  
**Advisor:** Dr. Dileep Deobagkar

## HONORS & AWARDS

- 2021** Selected as an inductee for ***I can STEM role model.***  
The New Jersey STEM Pathways Network honors diverse STEM leaders who have made and continue to make significant contributions in STEM. (also nominated in 2020)
- 2020** ***STEM educator of the year*** (By Research & Development Council of New Jersey)  
An honor highlighting an extraordinary educator who has gone above and beyond to improve STEM learning outcomes for New Jersey's students.
- 2020** Nominated to Board of Directors for the Association for Science Teacher Education (ASTE)
- 2015** President's Faculty Fellow at New Jersey City University (NJCU)  
An initiative at NJCU by President Henderson to engage faculty members in an yearlong research project who has excelled in research, teaching and service by forming communities of practice (CoP).
- 2013** Participated in the NSF-funded grant project, "Mini-Symposia: The Results of the African Diaspora: Developing Black Scholars in Science Education for the 21<sup>st</sup> Century in the United States, Part II" to design a micro-research study entitled, "Developing Pre-service Teachers' Pedagogical Content Knowledge for teaching Science to English Language Learners
- 2012** *Beechler Dissertation Fellowship*- Indiana University dissertation award  
*Grant-in-Aid Fellowship*- Indiana University dissertation award.
- 2011** *Jhumki Basu Scholars Award* - The National Association of Research in Science Teaching (NARST) Equity and Ethics committee award
- 2010** Nominated for *Outstanding Associate Instructor Award* - Indiana University, School of Education
- 2009** Distinguished Poster Award – Titled: *The influence of secondary science teachers' beliefs on the classroom instruction in India.*  
Category of Social Sciences at the annual meeting of American Association of Advancement of Science, Chicago, IL.

## SCHOLARSHIP

### A) Publications

#### Peer Reviewed Manuscripts & Book chapters (Accepted, Published & Invited)

1. **Nargund-Joshi, V (2020)** Reflections from a Science Teacher Educator: supporting pre- service teachers to teach science in a contextualized manner. In Sanchez I. (Ed), *International Perspectives on the Contextualization of Science Education*. Springer.
2. [Book] Koul, R., Verma, G., **Nargund-Joshi, V.** (2019 Eds) *The Science Education in India*. Springer Nature.
3. **Nargund-Joshi, V.**, Park Rogers, M., Bhagwate, D. (2019) A comparative case study of Primary Science Teachers' Beliefs and Orientations. In Koul, R., Verma, G., **Nargund-Joshi, V.**(Eds) *The Science Education in India*. Springer Nature.
4. **Akerson, V., Nargund-Joshi, V., Weiland, I, & Pongsanon, K** (2019), Teaching and Learning Nature of Science in Elementary Classrooms: Research Based Strategies for Practical Implementation, *Science & Education*, 28(3-5), 391-411
5. **Nargund-Joshi, V., Bragg, J.** (2017) The Stories of Inventions: An Interdisciplinary Project-Based Unit for Ninth-Grade U.S. History Students, *The Science Teacher*, 84(5), 44-50.
6. **Verma, G., Nargund-Joshi, V.** (2017) Educational rights of a girl child in India? Examining Intersections between Right to Education Act and National Curricular Framework. In Brown, E. L., Craven, R., McLean, G. (Eds.), *International Advances in Education: Global Initiatives for Equity and Social Justice (Volume 10: Gender Equity)*. Information Age Publishing.
7. **Nargund-Joshi, V., Bautista, N.** (2016) What Comes First? Language or Content: Learning Science Content through SIOP and Learning Cycle Model. *The Science Teacher*, 83(4), 24-30.
8. **Nargund-Joshi, V., Park Rogers, M., & Wiebke, H.** (2014) Examining science teachers' orientations in an era of reform: The role of context on beliefs and practice. In Czerniak, C., Evans, R., Luft, J., Celestine, P. (Eds.), *The Role of Science Teachers' Beliefs in International Classrooms: From Teacher Actions to Student Learning*. Rotterdam, The Netherlands: Sense Publications.
9. **Akerson, V., Nargund-Joshi, V, Weiland, I, & Pongsanon, K.** (2014) What Third-grade Students of Different Ability Levels Learn about Nature of Science after Year of Instruction. *International Journal of Science Education*, 36(2), 244-276.
10. **Akerson, V., Weiland, I, Nargund-Joshi, V, & Pongsanon, K.** (2014) Becoming an Elementary Teacher of Nature of Science: Lessons Learned for Teaching Elementary Science. A chapter in an ASTE Monograph titled *Science Teacher Educators as K-12 Teachers: Practicing What We Teach*, edited by Charles J. Eick and Michael Dias, 71-87.
11. **Akerson, V., Weiland, I, & Pongsanon, K. & Nargund-Joshi, V.** (2014) Developing a Professional Identify as an Elementary Teacher of Nature of Science: A Self-Study of becoming an elementary teacher. *International Journal of Science Education*, 1-28.
12. **Nargund-Joshi, V., Lee, J.** (2013) How much Trash do you Trash- An Interdisciplinary Project Based Unit. *Science and Children*, 50 (7), 50-55.
13. **Akerson, V.L., Townsend, S., Weiland, I., Nargund-Joshi, V.** (2012). Developing a hybrid online/on-site community of practice to support K-8 teachers' improvement in inquiry and nature of science conceptions. In P. Ghislandi (Ed.), *eLearning - Theories, Design, Software and Applications* (pp. 187-212). Rijeka, Croatia: InTech Publishers. Available from <http://www.intechopen.com/books/elearning-theories-design-software-and-applications>
14. **Nargund-Joshi, V.** Park Rogers, M.A., Akerson, V.L. (2011). Exploring Indian Secondary Teachers' Orientations and Practice for Teaching Science With Respect to Reform. *Journal of Research in Science Teaching*, 48(6), 624-647.
15. **Lee, J., Nargund-Joshi, V., & Dennis, B.** (2011). Progressing through the Haze in Science and Mathematics Education Research: Contemporary Use of Spradley's Qualitative Inquiry in Two Case Studies. *International Journal for Qualitative Methods*, 10(1), 42-57.
16. **Akerson, V.L., Buck, G.A., Donnelly, L.A., Nargund-Joshi, V., Weiland, I.** (2011) The importance of teaching and learning nature of science (NOS) in the early childhood years. *The Journal of Science Education and Technology* 20(5), 537-549.
17. **Weibke, H., Park Rogers, M., Nargund-Joshi, V.** (2011) Sizing up the Solar System... Can We Fathom It? *Science and Children*, 49(1), 36-41.
18. **Akerson, V. L., Weiland, I. S., Pongsanon, K., & Nargund, V.** (2010). Evidence-based Strategies for Teaching Nature of Science to Young Children *Journal of Kırşehir Education*, 11(4), 61-78.
19. **Nargund, V., Park Rogers, M.A.** (2009). That is not where it goes...Ah, Nature of Science. *Science Scope*, 33(2), 22-32.

### B) Grants

#### (Submitted)

2025:

- Research & Development Council of New Jersey (\$5,000) To conduct STEM camps for elementary students to celebrate New Jersey STEM month.
- New Jersey City University, Mini Grant (\$500) to support science education organization memberships.
- NJ STEM Pathways Network (\$500) To conduct Nutriomics: Well-being through nutrition workshop in collaboration with Greenway Family Success Center, Fords, NJ

#### (Funded)

2024:

- Research & Development Council of New Jersey (\$7,500) To conduct two STEM camps for Elementary students. Camp also provided opportunities for high schoolers to serve as in teaching interns.
- NJ STEM Pathways Network (\$500) To conduct Let's Shellebrate STEM workshop in collaboration with Biology club at New Jersey City University, Jersey City, NJ

2023:

- NJ STEM Pathways Network (\$500) To conduct Chickenology workshop in collaboration with Greenway Family Success Center, Fords, NJ
- NJ STEM Pathways Network (\$500) To conduct Let's Shellebrate STEM workshop in collaboration with Biology club at New Jersey City University, Jersey City, NJ

2022:

- NJ STEM Pathways Network (\$500) To conduct Hansel and Gretel: Engineering Challenge workshop in collaboration with Greenway Family Success Center, Fords, NJ

2021

- New Jersey City University, Mini Grant (\$300)
- NJ STEM Pathways Network (\$500) To conduct STEMulating Literacy workshop in collaboration with Greenway Family Success Center, Fords, NJ

2020

- NJ STEM Pathways Network (\$500) To conduct Two Bite Blub session in collaboration with Greenway Family Success Center, Fords, NJ

2019

- NJ STEM Pathways Network (\$500) To conduct Eggology session for PreK-2 grade level students on NJCU campus.

2015

- New Jersey City University, Separately Budgeted Research [SBR], Project titled: Developing pre-service Teachers' Pedagogical Content Knowledge for teaching science to English Language Learners (ELL) (\$2820)
- New Jersey City University, Mini Grant (\$456.37)

C) **Conference Presentations**

a. **International & National**

1. Nargund-Joshi, V (2024, January) *Understanding Case of Sugars: A study about knowledge and perception about carbohydrates in non-science major nutrition students.* Paper Accepted at the annual meeting of Association for Science Teacher Education, New Orleans, LA.
2. Nargund-Joshi, V (2024, January) *Getting involved with an ASTE publication.* A special session conducted as a chair of the Publications committee chair at the annual meeting of Association for Science Teacher Education, New Orleans, LA.
3. Masters H., Nargund-Joshi, V., (2022, January) *Fourth Graders Application of Electricity and Environmental Concepts When Designing a Flashlight.* Paper Accepted at the annual meeting of Association for Science Teacher Education, Greenville, SC.
4. Nargund-Joshi, V. (2019, April) *Developing Pre-service teachers' knowledge to teach academic language to English Learners: An Analysis of Methods course.* Paper accepted at the annual meeting of National Association for Research in Science Teaching, Baltimore, MD.
5. Nargund-Joshi, V. (2019, January) *A Case Study of Indian Teachers Battle to Teach Science in English.* Paper presented at the annual meeting of Association for Science Teacher Education, Savannah, GA.
6. Nargund-Joshi, V. (2018, April) *Analyzing Methods course to develop Pre-service teachers' knowledge to teach academic language to ELLs.* Paper accepted to the annual meeting of National Association for Research in Science Teaching, Atlanta, GA.
7. Nargund-Joshi, V. (2017, April) *Developing Pre-service Teachers' Knowledge for teaching Science to English Language Learners through merging Learning Cycle and SIOP Models* Paper accepted at the annual meeting of National Association for Research in Science Teaching, San Antonio, TX.
8. Nargund-Joshi, V. (2017, January) *Analyzing Indian Teachers' Knowledge about Science Teaching across Grade Levels.* Paper accepted at the annual meeting of Association for Science Teacher Education, Des Moines, IA.
9. Nargund-Joshi, V. (2016 March) *English as Default Language of Instruction in Primary Grades: Repercussions in Indian Science Classroom.* Paper accepted at the annual meeting of National Association for Research in Science Teaching, Baltimore, MD.
10. Nargund-Joshi, V. (2016 January) *Developing Pre-service Teachers' Knowledge for of instructional strategies for teaching Science to English Language Learners.* Paper accepted at the annual meeting of Association for Science Teacher Education, Reno, NV.
11. Nargund-Joshi, V. (2014 March) *Developing Pre-service Teachers' Pedagogical Content Knowledge for teaching Science to English Language Learners.* Paper accepted for the symposium entitled, "Mini-symposium as powerful synergy for young black scholars in science education" at the annual meeting of National Association for Research in Science Teaching, Pittsburgh, PA.

12. Bilican, K., Nargund-Joshi, V., Akerson, V. (2014 March) *How Mentoring Helps to Develop Nature of Science Teaching*. Paper accepted at the annual meeting of National Association for Research in Science Teaching, Pittsburgh, PA
13. Nargund-Joshi, V. (2014 January) *English as Default Language of Instruction in Primary Grades: Repercussions in Indian Science Classroom*. Paper accepted at the annual meeting of Association for Science Teacher Education, San Antonio, TX.
14. Nargund-Joshi, V., Park Rogers, M.A. (2013, April) *Understanding Indian Teachers' Orientations in Relation to PCK and Curriculum Reform*. Paper accepted at the annual meeting of National Association for Research in Science Teaching, Rio Grande, Puerto Rico.
15. Nargund-Joshi, V., Liu, X., Chowdhary, B., Grant, B., Smith, E. (2013, April). *Understanding Meanings of Interdisciplinary Science Inquiry in an Era of Next Generation Science Standards*. Paper accepted at the annual meeting of National Association for Research in Science Teaching, Rio Grande, Puerto Rico.
16. Nargund-Joshi, V., Liu, X., Chowdhary, B., Grant, B., Smith, E. (2013, April). *Understanding In-service Teachers' Orientation towards Interdisciplinary Science Inquiry*. Paper accepted at the annual meeting of National Association for Research in Science Teaching, Rio Grande, Puerto Rico.
17. Akerson, V.L., Nargund-Joshi, V., Weiland, I., & Pongsanon, K. (2013, April) *Evidence-based Strategies for Teaching Nature of Science to Young Children*. Paper accepted at the annual meeting of National Association for Research in Science Teaching, Rio Grande, Puerto Rico.
18. Nargund-Joshi, V., Park Rogers, M.A. (2013 January) *Understanding Indian Teachers' Science Teaching Orientations across Grade Levels*. Paper accepted at the annual meeting of Association for Science Teacher Education, Charleston, SC.
19. Nargund-Joshi, V., Park Rogers, M.A., Wiebke, H., Akerson, V.L. (2012, April) *Re-thinking Early Field Experiences For the Purpose of Preparing Elementary Preservice Teachers Pedagogical Content Knowledge*. Paper accepted at the annual meeting of National Association for Research in Science Teaching, Indianapolis, IN.
20. Wiebke, H, Park Rogers, M. A., Nargund-Joshi, V., Akerson V. L. (2012 January) *Iterative Model Building: Developing Preservice Elementary Teachers' Abilities to Uncover Students' Scientific Thinking to Inform Instruction*. Paper accepted at the annual meeting of Association for Science Teacher Education, Clearwater Beach, FL.
21. Nargund-Joshi, V, Root, P. (2012, April) *Wonders of Water: A K–2 Project-based Unit on Water*. Oral presentation at National Science Teacher Association, Indianapolis, IN.
22. Akerson, V.L., Nargund-Joshi, V., Weiland, I., & Pongsanon, K. (2012, April) *Evidence-based Strategies for Teaching Nature of Science to Young Children*. Oral presentation at National Science Teacher Association, Indianapolis, IN.
23. Akerson, V.L., Buck, G.A., Donnelly, L.A., Nargund-Joshi, V., Weiland, I. (2011) *The importance of teaching and learning nature of science (NOS) in the early childhood years*. Oral presentation at National Science Teacher Association, Indianapolis, IN.
24. Akerson, V. L., Nargund-Joshi, V., Weiland, I., & Pongsanon, K. (2011, September). *What third grade students of differing ability levels learn about nature of science after a year of instruction*. Paper presented at the conference of the European Science Education Research Association, Lyon, France.
25. Nargund-Joshi, V., Park Rogers M.A. (2011, April) *Exploring the Role of Context in Shaping Indian Science Teachers' Orientations*. Paper presented at the annual meeting of National Association for Research in Science Education, Orlando, FL.
26. Akerson, V. L., Nargund-Joshi V., Weiland, I., Pongsanon, K. (2011, April) *Comparative Case Studies of the Development of Third Graders' Conceptions of Nature of Science: Student Understandings after a Year of Instruction*. Paper presented at the annual meeting of National Association for Research in Science Education, Orlando, FL.
27. Nargund-Joshi, V., Park Rogers M.A. (2011, January) *Modifying a card sort activity for the purpose of understanding Indian teachers' orientations for teaching science*. Paper presented at the annual meeting of Association for Science Teacher Education, Minneapolis, MN.
28. Akerson, V. L., Nargund-Joshi V., Weiland, I., Pongsanon, K. (2011 January) *Comparative Case Studies of the Development of Third Graders' Conceptions of Nature of Science*. Paper presented at the annual meeting of Association for Science Teacher Education, Minneapolis, MN.



29. Akerson, V. L., Nargund-Joshi, V., Weiland, I., & Pongsanon, K. (2011, January). *What third grade students of differing ability levels learn about nature of science after a year of instruction*. Paper presented at the Hawaii International Conference on Education, Honolulu, Hawaii.
30. Nargund, V., Park Rogers, M.A. (2010, April). *Identifying Indian Secondary Science Teachers' Beliefs about Science Teaching and Learning and Their Alignment with National Reform Efforts*. Paper presented at International Committee sponsored session at the annual meeting of National Association for Research in Science Education, Philadelphia, PA.
31. Akerson, V.L., Pongsanon, K., Nargund, V. (2010, April). *Teaching Nature of Science in a Third Grade Classroom: An Assessment of Strategies and Student Knowledge*. Paper presented at the annual meeting of National Association for Research in Science Education, Philadelphia, PA.
32. Nargund, V., Lee, J. (2010). *How much dump do we dump?* Oral presentation at National Science Teacher Association, Philadelphia, PA.
33. Lee, J., Nargund V. (2010) *How? What? Why? Creating Interdisciplinary Units of Stud.* Oral presentation at National Council of Teacher of Mathematics, San Diego, CA.

**b. Regional & Local**

1. Adams, K., Nargund-Joshi, V. (2017, July) *Designing Instruction to Contextualize Learning*. Paper accepted at the annual meeting of ChemEd 2017 in Brookings, South Dakota
2. Adams, K., Nargund-Joshi, V. (2017, July) *Learning Progressions and the Tetrahedral Model for Chemistry Education*. Paper accepted at the annual meeting of ChemEd 2017 in Brookings, South Dakota
3. Nargund-Joshi, V. (2014 May) *Understanding Struggles of Pre-service Teachers' Pedagogical Content Knowledge development for teaching Science to English Language Learners*. Poster accepted for the Spring conference of New Jersey Teachers of English to Speakers of Other Language/ New Jersey Bilingual Educators, New Brunswick, NJ.
4. Galindo, E., Rapacki, L., Nargund-Joshi, V. (2011, October) *Iterative Model Building: Making Lesson Study Work at your School*. Presentation made at the regional conference of National Council of Teachers of Mathematics, St. Louis, MO.
5. Galindo, E.; Nargund-Joshi, V; Rapacki, L.; Vesperman C.; Weibke, H. (2011, February). *Reshaping Elementary Mathematics and Science Field Experiences: The Iterative Model Building (IMB) Approach*. Paper presented at the Curriculum & Instruction Research Creative Activity Symposium (CIRCAS), School of Education, Indiana University, Bloomington, IN.
6. Akerson, V. L., Nargund-Joshi V., Weiland, I., Pongsanon, K. (2011, February) *Comparative Case Studies of the Development of Third Graders' Conceptions of Nature of Science: Student Understandings after a Year of Instruction*. Paper presented at the Curriculum & Instruction Research Creative Activity Symposium (CIRCAS), School of Education, Indiana University, Bloomington, IN.

**D) Invited Talks**

- 2020 Nargund-Joshi, V & Madden L. (2020, May) *How to Write Your First Book: Insights From Two Authors*. Webinar presented for New Jersey STEM Pathways
- 2016 Nargund-Joshi, V (2016, December) *Understanding Pedagogical Content Knowledge (PCK) as a framework to unpack science teacher knowledge: Learning from different contexts*. Lecture presented at Homi Bhabha Center for Science Education, Mumbai, India
- 2012 Wiebke, H. L., & Nargund-Joshi, V. (2012, March) *Sizing up the solar system*. Workshop presented at National Science Teacher Association, Indianapolis, IN.

**E) PhD guide & Other Research Experiences**

- 2021 External Examiner- Invited to serve as a reviewer for the Doctor of Philosophy thesis by Malcolm John Roberts. The thesis is entitled: 'Critical Success Factors for Implementing Open-Source Software to Support Learning and Teaching in a New Zealand Senior High School'. Curtin University, Australia

## RESEARCH IN PRACTICE

**The Parent Academy:** Founder of a forum for parents and kids to address the gap between school and home.

- 2023/2024      **Chickenology**  
In Collaboration with Greenway Family Success Center, Fords NJ  
A program for children in grades K-6. This workshop focused on learning about chicken's life cycle, use of animals and farming practices in human nutrition.
- 2022      **Hansel and Gretel: Engineering Challenge**  
In Collaboration with Greenway Family Success Center, Fords NJ  
A program for children in grades K-6. This workshop focused on learning Engineering design principles through a fairy tale of Hansel and Gretel.
- 2021      **STEM Camp:** In Collaboration with Skyway Family Success Center, Jersey City NJ  
A program for children ages K-6. This STEM camp is focused on learning about diversity in Animal kingdom
- STEM and Literacy:** In Collaboration with Skyway Family Success Center, Jersey City NJ  
A program for parents of children ages K-6. Integrating STEM and storytelling through children's literature.
- STEMulating Literacy:** In Collaboration with Greenway Family Success Center, Fords NJ  
A program for parents of children ages K-6. Integrating STEM and storytelling through children's literature.
- 2020      **Introducing STEM at Home:** In Collaboration with Greenway Family Success Center, Fords NJ  
A program for parents of children ages 1 to 6. Bringing STEM principles in daily lives.
- Healthy and Thriving Families: Nutrition Series** In collaboration with Greenway Family Success Center, Fords, NJ  
A program for parents and kids to include more nutritious food choices in everyday meals.
- 2019      **Start your child on the Pathway of Excellence:**  
A workshop presented for instructors at Garware Balbhavan, a research based community center, Pune, India.

## TEACHING EXPERIENCE

### a) **University Teaching**

Biol – 130. Principles of Biology- I  
Biol – 31 Principles of Biology-II  
Biol – 106 Practical Nutrition  
Biol – 224 The Human Body  
Biol – 225 The Human Sexual Biology  
Edu – 694 Curriculum: Math, Science & Technology  
Edu – 362 Elementary Science Methods  
Edu – 693 Educational Assessment  
Edu – 619 Research Seminar  
Edu – 470 Concurrent Student Teaching Seminar  
Edu – 3372 Science Methods and Materials

*Field experience and practice, Math and Science Coordinator, New Jersey City University*

Role included placing Math and science students to different schools for clinical practice. Assign supervisors for each clinical experience student, arrange supervisor's visits for every student, maintain communication between supervisor, students and classroom teacher.

### b) **K-12 Science Teaching Experience**

- 2021-      Science Exploratory: Science Club for lower elementary kids at Cedar Hill Preparatory School, Somerset.  
2019      SAT STEM: Expedition for kids - 'EGGOLOGY': Science workshop for PreK-2 students.  
2017      Innovation High School: Developed a project-based unit in collaboration with a biology high school teacher and a history professor Dr. John Bragg.
- 2015      Innovation High School: Developed a unit on historical events of scientific knowledge in collaboration with two high schoolteachers from social studies and science department and a history professor Dr. John Bragg.
- 2013 – 2014      *Improving the Pipeline in STEM Education Grant*, a workshop conducted for students from Union County College.  
Developed inquiry-based food chemistry laboratory activities that included investigating daily food items containing protein and starch.  
*Jersey City Summer Internship Program* for High school students from Jersey City Public School. New Jersey  
Developed inquiry-based activity called, NJCU: An Eye-Opening Experience that included cow eye dissection and comparison between human eye and cow eye structure.

c) **Professional Development Workshops for In-service science teachers**

- 2019 Analyzing Educational Landscape to Prepare Our Future Workforce- A workshop conducted for Hebei University's Chinese Delegation at Confucius Institute, New Jersey City University
- 2014 & 2016: Secrets of Successful Science Fair Projects- A workshop conducted for middle-school and high-school teachers to familiarize with Next Generation Science Standards and to support development of inquiry-based science fair projects.

d) **Creating Mentoring Experiences for Pre-service science teachers**

- 2015 Designed and conducted three workshops for pre-service teachers to introduce expectations of the Core Academic Skills for Educators (CORE), a new requirement for teacher certification.

**Professional Development Experience**

- 2019 -2024: Participated in National meetings of STEM Ecosystem, Communities of Practice,  
(2024: Chicago, IL, 2019: Columbus, OH., 2019: New Orleans, LA., 2018: Orange County, CA)
- 2020 Participated in Ideas and Innovation in STEM for K-5 Teachers, The College of New Jersey, NJ  
Completed a program called, Introduction to Coding and Robotics with Dash & Dot.

**SERVICE RELATED ACTIVITIES**

a) **New Jersey City University**

- 2017-2022 Senator for Elementary and secondary education department
- 2020 Served as Faculty mentor for Biology students. Proyecto STEM Program

**UNIVERSITY WIDE COMMITTEES**

- 2019 – 2022 Chair of **University Senate Academic Standards Committee** for New Jersey City University
- 2017 – 2018 Chair of **University Senate Academic Standards Committee** for New Jersey City University.
- Led initiatives to enhance academic standards and policies.
- Member of **South Asian Advisory Board (SAAB)** for New Jersey City University
- Developed strategies for recruiting and retaining students from India.
  - Strengthened NJCU's relationships with the domestic South Asian community.
- Advisory Board Member for **Study Abroad Program** for New Jersey City University
- Reviewed and provided feedback on study abroad proposals to enrich student experiences.
- 2014-2018. Member of **Institutional Review Board (IRB)** for New Jersey City University.
- Responsibilities include reviewing new research proposals and provide needful feedback for improving research proposal to make sure human subjects involved in the research study are protected.
- 2015-2018. Member of **Quantitative Literacy Across the Curriculum Initiatives** Committee for New Jersey City University.
- 2014-2017. Member of *Curriculum Committee* for Elementary and Secondary Education Department in the School of Education and Department of Biology. New Jersey City University, Jersey City
- 2014-2024. Member of *Assessment Committee* for Biology Department. New Jersey City University, Jersey City

b) **Professional Organizations**

- 2023-2024 Senior Board Member: Association for Science Teacher Education
- 2021-2024 Publications Committee Co-chair, Association for Science Teacher Education
- 2021-2023 Board Member at Large: Association for Science Teacher Education (Elected Position)

**Editorial Duties**

- 2017-2020 Associate Editor, Journal of Science Teacher Education
- 2017-2020 Editorial Board Member, Innovations in Science Education
- 2013-2016 Editorial Board Member, Journal of Science Teacher Education
- 2015-2016 Editorial Board Member, Innovations in Science Education
- 2013-2015 Editorial Board Member, for the *Journal of Research in Science Teaching*  
– the official journal of the National Association for Research in Science Teaching.
- 2013-2014 Guest reviewer for Journal of Science Education and Technology



- 2012- 2015      *Editorial Board Member*, for the journal *Elementary Science Education* – a bi-annual publication of *The Journal of Science Teacher Education*, published by The Association for Science Teacher Education.
- 2011-2013      *Guest reviewer* for *Journal of Research in Science Teaching (JRST)* & *Elementary Science Education*

#### **Professional Committees**

- 2015      A member of the Association for Science Teacher Education (ASTE) Publication Committee.  
A member of the Association for Science Teacher Education (ASTE) Equity and Ethics Committee.
- 2014      Served as *mentor* for Association for Science Teacher Education (ASTE) mentor-mentee nexus.  
The ASTE mentoring program pairs experienced ASTE members with those newer to the organization or the professoriate. Support ranging from navigating the conference to early career advice is a typical outgrowth of this mentoring experience.
- 2013      A member of the National Association of Research in Science Teaching (NARST) Outstanding Doctoral Research Award Selection Committee.