

Curriculum Vitae of Autar Kaw

CONTACT INFORMATION

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EDUCATION

Ph.D. Clemson University, 1987, Engineering Mechanics.
M.S. Clemson University, 1984, Engineering Mechanics.
B.E. (Hons.) Birla Institute of Technology and Science, 1981, Mechanical Engineering.

ACADEMIC EXPERIENCE:

Aug 96 - Present: Professor, Mechanical Engineering, University of South Florida.
Aug 92 - Aug 96: Associate Professor, Mechanical Engineering, University of South Florida.
Aug 87 - Aug 92: Assistant Professor, Mechanical Engineering, University of South Florida.
May 84 - Aug 87: Principal Graduate Research & Teaching Assistant, Mechanical Engineering, Clemson University.
Aug 82 - Dec 83: Graduate Research Assistant, Mechanical Engineering, Clemson University.

NON-ACADEMIC & SHORT-TERM EXPERIENCE:

July 2013: Visiting Professor, Universidad Del Norte, Barranquilla, Colombia.
March 2013: Instructor, Special Topics, University of Applied Sciences, Frankfurt, Germany.
June 92 - Aug 92: AFOSR Summer Faculty Research Associate, Materials Directorate, Wright Patterson Air Force Base, Ohio.
May 91 - Aug 91: Visiting Scientist, Materials Directorate, Wright Patterson Air Force Base, Ohio.
Aug 81 - Aug 82: Maintenance Engineer, Escorts Tractors Limited, Faridabad, India.
June 80 - Dec 80: Practice School Intern, National Thermal Power Corporation, Delhi.

AWARDS AND HONORS:

USF Faculty Outstanding Research Achievement Award, 2021

The annual awards are part of an open competition, judged by the USF Research Council, to highlight the professional acclaim received by the recipients from their national and international peers for their research.

ASEE Ralph Coats Roe Teaching Award, June 2018

Recognizes a mechanical engineering educator who is an outstanding teacher and who has made notable professional contributions

Inaugural Member, USF Academy of Distinguished Engineering Educators, (2018-21)

Promotes and supports excellence in education to create a convergence of enhanced student learning experiences, aids the professional enrichment of faculty, and empowers the excellent educator

Fulbright Specialist Candidate, 2013-19

The Fulbright Specialist Program (FSP) promotes linkages between U.S. scholars and professionals and their counterparts at host institutions overseas. The program awards grants to qualified U.S. faculty and professionals in select disciplines to engage in short-term collaborative projects

STEER STEM Teaching Award, USF, Fall 2016

Chosen based on achievement in evidence-based teaching and a commitment toward students and the student success initiative. Recipients serve as ambassadors of excellent STEM teaching practice and provide workshops and STEM newsletter articles aimed at fellow STEM instructors.

USF Last Lecture, "Reflections of an Ordinary Man for the Millennial Generation," April 10, 2014

Given by a distinguished faculty, administrator, or staff, what would your message be if you were to have one last chance to speak to a group? The intention is that a hypothetical 'last' lecture will evoke inspirational, engaging, and entertaining messages.

State of Florida Resolution, S.R. 1900, April 30, 2013

Recognizing the Carnegie Foundation for the Advancement of Teaching and the Council for Advancement and Support of Education (CASE) 2012 United States Outstanding Doctoral and Research Universities Professor of the Year, Autar Kaw, Ph.D., etc.

Phi Kappa Phi Artist-Scholar Award, USF, 2013

The USF Phi Kappa Phi Artist-Scholar Award honors those individuals who demonstrate the ideals of the Society through their activities, achievements, and scholarship at USF.

Kosove Distinguished Undergraduate Teaching and Service Award, USF, 2013

Given once a year by the Kosove Society for a professorship to recognize USF professors whose careers have brought them national distinction in teaching and service.

Outstanding Faculty Award, USF, 2014

Award for recent professional recognition of USF faculty by many of the world's top scholarly and research organizations.

Student Government Senate Resolution, USF, H.B. [R] 53-012

Recognizing the Carnegie Foundation for the Advancement of Teaching and the Council for Advancement and Support of Education (CASE) 2012 United States Outstanding Doctoral and Research Universities Professor of the Year, Autar Kaw.

U.S. Professor of the Year, Doctoral and Research Universities, CFAT & CASE, 2012

Given once a year to recognize excellence in undergraduate education jointly by the Carnegie Foundation for the Advancement of Teaching (CFAT) and the Council for Advancement and Support of Education (CASE)

ASEE National Outstanding Teaching Medal, 2011

The ASEE Outstanding Teaching Medal is designed to provide national recognition to an engineering or engineering technology educator for outstanding classroom performance, contributions to the scholarship of teaching, and participation in ASEE Section meetings and local activities.

ASEE-SE Outstanding Teaching Award, 2010

The ASEE Southeastern Section Outstanding Teaching Award is intended to recognize faculty members who have demonstrated exceptional contributions to engineering or engineering technology education through outstanding classroom performance.

ASEE DELOS Best Paper Award, 2006

The Division for Experimentation and Laboratory-Oriented Studies (DELOS) of ASEE recognizes individuals for excellence in the preparation and presentation of a paper in a DELOS session at the ASEE Annual Conference.

Fellow ASME, 2005

Fellows have attained a membership grade of distinction who have been responsible for significant engineering achievement

Florida U.S. Professor of the Year, CFAT & CASE, 2004

Given once a year for excellence in undergraduate education in the 50 U.S. states jointly by the Carnegie Foundation for the Advancement of Teaching (CFAT) and Council for Advancement and Support of Education (CASE)

ASME Curriculum Innovation Award, ASME, 2004

Given once a year to recognize & encourage innovation in Mechanical Engineering Education

Archie Higdon Mechanics Educator Award, ASEE, 2003

Given once a year to an outstanding mechanics educator in the nation

Engineer of the Year, ASME Florida West Coast Section, 2003

Given once a year for outstanding contributions and professional services to engineering

Jerome Krivanek Distinguished Teacher Award, USF, 1999.

Given once a year to an outstanding teacher at the university

Teaching Incentive Program Award, State University System of Florida, 1997, 1994.

Given to about 8% of the faculty in public universities of Florida who are outstanding in undergraduate teaching

College of Engineering Teaching Excellence Award, USF, 1995, 1990.

Given to an outstanding teacher in the college

University-Wide Outstanding Undergraduate Teaching Award, USF, 2007, 1996, 1990.

Given to about 1-2% of faculty who are outstanding teachers in the university

Outstanding Contributions in Research Award, Southeast Section of American Society of Engineering Education (ASEE), 1996.

Given based on selecting the best technical paper submitted by Colleges of Engineering in the Southeast USA

Outstanding New Mechanics Educators Award, American Society of Engineering Education (ASEE), 1992.

Given to an outstanding mechanics educator in the nation with less than five years of educational experience.

Ralph R. Teetor Educational Award, Society of Automotive Engineers (SAE), 1991.

Given to engineering educators in the nation to recognize teaching, research, and service

Faculty Honor Guard, USF, 1989/90.

Nominated by students and given to about six faculty members in the university

Outstanding Graduate Teaching Assistant Award, Mechanical Engineering Department, Clemson University, 1985.

Given to an outstanding teaching assistant in the department

Dupont Fellow, NSF/ASEE Faculty Development Program, Summer 1989.

Given for faculty development that includes stipend and travel expenses

Certificate of Service/Dedication

ASME Southeastern Region, 1989-90.

ASME Florida West Coast Chapter, 1989-90.

ASME USF Student Section, 1989-90.

Marquis Who's Who in

America, 1997-

South and Southwest of America, 1992-

America's Young Professionals, 1993-

Education, 1993-

Science and Engineering, 1993-

EXTERNAL GRANTS AND CONTRACTS:

1. "Transforming Undergraduate Engineering Education through Adaptive Learning and Student Data Analytics," National Science Foundation, \$599,770, July 2020 – June 2024 (P.I.).
2. "Collaborative Proposal: Structured Use of Metacognitive Activities in a Flipped Undergraduate Engineering Course to Enhance Learning and Professional Skill Development," National Science Foundation, \$198,253, October 2020 – September 2023 (Co-PI).
3. "Transforming a Flipped STEM Course Through Adaptive Learning," National Science Foundation, \$299,823, September 2016 – August 2019 (P.I.).
4. "Improving and Assessing Student Learning in an Inverted STEM Classroom Setting," National Science Foundation, \$598,522, September 2013 – August 2017 (P.I.).
5. "FY2014 Summer Undergraduate Research Fellowship Program," NIST, \$8,635, May 2014 – August 2014 (P.I.).
6. "FY2013 Summer Undergraduate Research Fellowship Program," NIST, \$8,636, May 2013 – August 2013 (P.I.).
7. "Holistic Numerical Methods: Unabridged," National Science Foundation, \$500,189, January 2008 – December 2012 (P.I.).
8. "Collaborative Research: Development of New Prototype Tools, and Adaptation and Implementation of Current Resources for a Course in Numerical Methods, National Science Foundation," \$39,986, February 2009 – July 2011 (P.I.).
9. "Holistic Numerical Methods," National Science Foundation, \$363,280, March 2004 – December 2007 (P.I.).
10. "Hub Assemblies for the Next Generation of Bascule Bridges," U.S. Department of Transportation, \$73,650, October 2004 – September 2005 (Co-PI).
11. "Holistic Numerical Methods: A Prototype," National Science Foundation, \$74,961, January 2002 – November 2003 (P.I.).
12. "Hub-Girder Bolt Assembly without An Interference Fit in Bascule Bridges," Florida Department of Transportation, \$110,000, November 2001 – August 2003 (Co-PI).

13. "Parametric Finite Element Analysis and Full-Scale Testing of Trunnion Hub Assemblies for Bascule Bridges," Florida Department of Transportation, \$250,000, September 1998 – August 2001 (Co-PI).
14. "Acquisition of an Axial-Torsional Loading System for Civil, Mechanical and Materials Testing," National Science Foundation, \$166,240, October 1999 – April 2001 (Co-PI).
15. "Mechanics of Brittle Matrix Composites with Imperfect Interfaces," Air Force Office of Scientific Research, \$108,319, July 1995 – August 1997 (P.I.).
16. "Mechanics of Brittle Matrix Composites with Imperfect Interfaces," Air Force Office of Scientific Research, \$50,000, September 1994 – June 1995 (P.I.).
17. "Micromechanics of Matrix Cracking in Brittle Matrix Composites with Frictional Interfaces," Summer Research Extension Program, Research and Development Laboratory/Air Force Office of Scientific Research, \$20,000, January 1993 – December 1993 (P.I.).
18. "Mechanics of Brittle Matrix Composites with Imperfect Interfaces," Air Force Office of Scientific Research, \$93,211, September 1992 – September 1994 (P.I.).
19. "Annular Cracks In Brittle Matrix Composites," Systran Corporation/Wright Patterson AFB, Dayton, Ohio, \$14,100, May 91 – August 1991 (P.I.).
20. "Design and Analysis of Stainless Steel Tanks," Montgomery Tank Lines, Plant City, Florida, \$27,653, October 89 – May 90 (Co-PI).

KEYNOTE SPEECHES:

1. A. Kaw, "A Framework for Including Multiple Pedagogies for STEM Education," ISFT, Faridabad, January 7, 2020.
2. A. Kaw, "Pragmatic Learning Strategies for Higher Education," ISFT, New Delhi, January 18, 2016.
3. A. Kaw, "Evidence-Based Classroom Strategies for Improving Student Learning in the Twenty-First Century," 2014 Summer Faculty Development Conference, UCF, Orlando, May 5-8, 2014.
4. A. Kaw, "Innovations in Education," World Engineering Education Forum, Cartagena, Colombia, September 24-27, 2013.
5. A. Kaw, "Global Perspectives on Higher Education: An Online View," UN-Habitat Partner University Initiative, Tampa, May 10, 2013.

RESEARCH INTERESTS

1. Engineering Education Research Methods
2. Flipped, Blended, and Adaptive Learning
3. Open Courseware
4. Bascule Bridge Design
5. Fracture Mechanics
6. Composite Materials

OPEN COURSEWARE

1. Holistic Numerical Methods, <http://nm.MathForCollege.com>.
2. Introduction to Matrix Algebra, <http://ma.MathForCollege.com>
3. Programming Concepts, <http://programming.autarkaw.com>

MOOCS

1. Numerical Methods, <https://canvas.instructure.com/courses/1635808>
2. Introduction to Matrix Algebra, <https://canvas.instructure.com/courses/1717407>

SOCIAL MEDIA

1. Numerical Methods Guy YouTube, <http://youtube.com/numericalmethodsguy>
2. The Numerical Methods Guy Blog, <http://blog.autarkaw.com>
3. F.E. Exam Practice Questions, <http://feexam.autarkaw.com>
4. Twitter, <http://www.twitter.com/numericalguy>
5. Facebook, <https://www.facebook.com/numericalmethods>
6. LinkedIn, <http://www.linkedin.com/in/autarkaw>

TEXTBOOKS:

1. A. Kaw, "Mechanics of Composite Materials," CRC Press, 1st edition 1997, 2nd edition 2005 (adopted by more than 55 universities, translated to Farsi and Turkish).
2. A. Kaw, B. Rigsby, D. Miller, I. Handzic, "Introduction to Programming Concepts Using MATLAB," Lulu.com, Raleigh, NC, 2012.
3. Lead-Author, "Fundamentals of Engineering Examination Sample Questions: General Engineering," Lulu.com, Raleigh, NC, 2009.
4. A. Kaw, D. Nguyen, "Numerical Methods with Applications," Lulu.com, Raleigh, NC, 2010.
5. A. Kaw, "Introduction to Matrix Algebra," Lulu.com, Raleigh, NC, 2008.
6. Co-Author, "Fundamentals of Engineering Preparation Guide," Research and Engineering Associates, Piscataway, 1991-2012.

REFEREED JOURNAL PAPERS:

1. R. Clark, A. Kaw, Y. Lou A. Scott, "The flipped classroom during the remote period of COVID: student perceptions compared to pre-COVID times", International Journal of Mathematical Education in Science and Technology, pp. 1-22, 2022. <https://doi.org/10.1080/0020739X.2022.2052198>
2. R. Clark, A. Kaw, R. Braga Gomes, "Adaptive Learning: Helpful To The Flipped Classroom In The Online Environment Of COVID?", Computer Applications in Engineering Education, pp. 1- 15, Vol. 30(2), 2022.
3. R. Clark, A. Kaw, "Enhancing Student Outcomes in a Blended Numerical Methods Course for Engineers: The Case for Practice and Cumulative Tests," International Journal of Engineering Education, pp. 585-593, Vol. 37(3), 2021.
4. R. Clark, A. Kaw, "Adaptive Learning in a Numerical Methods Course for Engineers: Evaluation in Blended and Flipped Classrooms," Computer Applications in Engineering Education, pp. 62-79, Vol. 28(1), 2021.
5. R. Clark, A. Kaw, "Benefits of Adaptive Lessons For Pre-Class Preparation In A Flipped Numerical Methods Course," International Journal of Mathematical Education in Science and Technology, pp. 713-729, Vol 51(5), 2020.
6. A. Kaw, R. Clark, E. Delgado, N. Abate, "Analyzing the Use of Adaptive Learning in a Flipped Classroom for Pre-Class Learning," Computer Applications in Engineering Education, pp. 663-678, Vol.27 (3), 2019.

7. J. Tai, A. Kaw, "Transverse Shear Modulus of Unidirectional Composites With Voids Estimated by the Multiple-Cells Model," *Composites Part A: Applied Science and Manufacturing*, pp.310-320, Vol 105, 2018.
8. R. Clark, A. Kaw, Y. Lou, A. Scott, M. Besterfield-Sacre, "Evaluating Blended and Flipped Instruction in Numerical Methods at Multiple Engineering Schools," *International Journal for the Scholarship of Teaching and Learning*, Vol.12 (1), 2018.
9. R. Clark, A. Kaw, M. Besterfield-Sacre, "Comparing the Effectiveness of Blended, Semi-Flipped, and Flipped Formats in an Engineering Numerical Methods Course," *ASEE Advances in Engineering Education*, Vol 5(3), 2016.
10. G. Aden-Buie, A. Kaw, A. Yalcin, "Comparison of Final Examination Formats in a Numerical Methods Course," *International Journal of Engineering Education*, pp. 72-82, Vol 31, 2015.
11. S.H. Garapati, A. Kaw, "Analysis of Heating and Cooling Methods for Assembly of Steel Fulcra in Bascule Bridges," *Bridge Structures*, pp. 121-133, Vol. 8, 2012.
12. A. Kaw, A. Yalcin, D. Nguyen, R. Pendyala, M. Hess, G. Lee-Thomas, G. Besterfield, J. Eison, C. Owens, "A Holistic View on History, Development, Assessment, and Future of an Open Courseware in Numerical Methods," *ASEE Computers in Education Journal*, Vol. 3(4), pp. 57-71, 2012.
13. A. Kaw, A. Yalcin, "Measuring Student Learning Using Initial and Final Concept Test in a STEM Course," *International Journal of Mathematics Education in Science and Technology*, pp. 435-448, Vol. 43(4), 2012.
14. C. Owens, A. Kaw, M. Hess, "Assessing Online Resources for an Engineering Course," *Computer Applications in Engineering Education*, pp. 426-433, Vol. 20(3), 2012.
15. S. Garapati, A. Kaw, "Effect of Geometry, Loading and Elastic Moduli on Critical Parameters in a Nanoindentation Test in Polymeric Matrix Composites with a Nonhomogeneous Interphase," *Composite Interfaces*, pp. 275-294, Vol. 18, 2011.
16. S. Garapati, L. Snyder, A. Kaw, "Comparing Two Procedures for Assembling Steel Fulcra in Simple-Trunnion Bascule Bridges," *Bridge Structures*, pp. 19-30, Vol. 7(1), 2011.
17. E. Gil-Herrera, A. Tsalatsanis, A. Yalcin, A. Kaw, "Predicting Academic Performance Using a Rough Set Theory Based Knowledge Discovery Methodology," *International Journal of Engineering Education*, pp. 992-1002, Vol. 27 (5), 2011.
18. A. Yalcin, A. Kaw, "Does Grading Homework Improve Student Examination Performance?," *International Journal of Engineering Education*, *International Journal of Engineering Education*, pp. 1-10, Vol. 27 (6), 2011.
19. A. Kaw, S. Garapati, "Development and Assessment of Digital Audiovisual YouTube Lectures for an Engineering Course in Numerical Methods," *ASEE Computers in Education Journal*, pp. 89-97, Vol. 2 (2), 2011.
20. M. Rajapakshe, M. Gunaratne, A. Kaw, "Evaluation of LuGre Tire Friction Model with Measured Data on Multiple Pavement Surfaces," *Tire Science and Technology, TSTCA*, Vol. 38 (3), pp. 213-227, 2010.
21. A. Kaw, A. Yalcin, "A Metric to Quantify the Topsy-Turvyness of a College Football Season," *Chance*, pp. 18-26, Vol. 22(3), 2009.
22. A. Kaw, A. Yalcin, B. DeMenezes, E. Allard, "Introducing and Assessing Laboratory Experience in a Numerical Methods Course for Engineers," *ASEE Computers in Education Journal*, pp. 57-65, Vol. XVIII (3), 2009.
23. A. Kaw, A. Yalcin, "Problem-Centered Approach in a Course in Numerical Methods," *ASCE Journal of Professional Issues and Engineering Education*, pp. 359-364, Vol. 134(4), 2008. Closure of "Problem-Centered Approach in a Numerical Methods Course," *Journal of Professional Issues in Engineering Education and Practice*, pp. 119-119, Vol. 136 (2), 2010.

24. Nguyen, A. Kaw, J. Paul, "Sensitivity Analysis of Cooling Methods and Geometric Parameters in Assembly Procedure of Bascule Bridge Fulcrums," *The Journal of Strain Analysis for Engineering Design*, pp. 337-349, Vol. 42, 2007.
25. A. Kaw, M. Hess, "Comparing Effectiveness of Instructional Delivery Modalities in an Engineering Course," *International Journal of Engineering Education*, pp. 508-516, Vol. 23(3), 2007.
26. P. Chalasani, A. Kaw, J. Daly, C. Nguyen, "Effect of Geometrical and Material Parameters in Nanoindentation of Layered Materials with an Interphase," *International Journal of Solids and Structures*, pp. 5380-5395, Vol 44 (16), 2007.
27. A. Kaw, S. Ho, "Introducing Approximate Methods in Theory of Elasticity," *Computer Applications for Engineering Education*, pp. 120-134, Vol. 14 (2), 2006.
28. N. Collier, A. Kaw, G.H. Besterfield, M. Rahman, "Benefits of Staged Cooling of Composite Cylinders in Shrink Fitting," *The Journal of Strain Analysis for Engineering Design*, pp. 349-361, Vol. 41 (5), 2006.
29. A. Kaw, G.H. Besterfield, J. Eison, "Effectiveness of a Holistic & Customized Approach to Teaching Numerical Methods," *International Journal of Engineering Education*, pp. 712-722, Vol. 21 (4), 2005.
30. A. Kaw, "Techniques Employed by Highly Effective Engineering Educators," *ASCE Journal of Professional Issues and Engineering Education*, pp. 175-177, Vol. 131 (3), 2005.
31. A. Kaw, G.H. Besterfield, S. Nichani, "Integrating a Research Problem in a Course in Applied Elasticity," *International Journal of Mechanical Engineering Education*, pp. 232-242, Vol. 32 (3), (2004).
32. N. Collier, A. Kaw, "On Comparing Computational Systems - Maple, Mathcad, MATLAB, and Mathematica," *ASEE Computers in Education Journal*, pp. 12-24, Vol. XIV (1), (2004).
33. A. Kaw, N. Collier, M. Keteltas, J. Paul, G.H. Besterfield, "Holistic but customized resources for a course in numerical methods," *Computer Applications for Engineering Education*, pp. 203-210, Vol. 11, (2003).
34. G.H. Besterfield, A. Kaw, S. Nichani, B. Ratnam, T. Cherukara, M. Denninger "Assembly Procedures of a Trunnion-Hub-Girder for Bascule Bridges," *Theoretical and Applied Fracture Mechanics*, Vol 40, No 2, pp. 123-134, (2003).
35. G.H. Besterfield, S. Nichani, A. Kaw, T. Eason, "Full-Scale Testing of Trunnion-Hub-Girder Assemblies for Bascule Bridges," *ASCE Journal of Bridge Engineering*, Vol. 8, No. 4, pp. 204-211, (2003).
36. N. Pai, A. Kaw, M. Weng, "Optimization of Laminate Stacking Sequence for Failure Load Maximization Using Tabu Search," *Composites Part B*, Vol. 34, No. 1, pp 405-413, (2003).
37. J. Ye, A. Kaw, "Determination of Mechanical Properties of Fiber-Matrix Interface from Pushout Test," *Theoretical and Applied Fracture Mechanics*, Vol. 32, No 1, pp 15-25, (1999).
38. A. Kaw, R. Rodriguez, "Synthesis of Tools in Teaching a Course in Mechanics of Composite Materials," *Mechanics*, Vol. 27, No. 11, pp. I-VI, (1998).
39. A. Kaw, G. Willenbring, "A Software Tool for Mechanics of Composite Materials," *International Journal of Engineering Education*, Vol. 13, No. 6, pp. 433-481, (1998).
40. T. Srinath, H. Madanraj, A. Kaw, J. Ye, G.H. Besterfield, "Effect of Extrinsic and Intrinsic Factors in Indentation Tests," *International Journal of Solids and Structures*, Vol. 33, No. 24, pp. 3497-3516 (1996).
41. A. Kaw, M. Daniels, "Should We Continue to Debate over the Change to S.I. System?" *ASCE Journal of Professional Issues in Engineering Education and Practice*, Vol. 122, No. 2, pp. 69-72 (1996).
42. N.J. Pagano, A. Kaw, "Asymptotic Stresses Around a Crack Tip at the Interface Between Planar or Cylindrical Bodies," *International Journal of Fracture*, Vol. 71, No. 2, pp. 151-164, (1995).

43. A. Kaw, S. Kunchithpatham, N.J. Pagano, "Stress Field in a Composite Cylinder with a Friction Fiber-Matrix Interface," *International Journal of Solids and Structures*, Vol. 32, No. 15, pp. 2127-2154, (1995).
44. V.T. Bechel, A. Kaw, "Fracture Mechanics of Composites with Nonhomogeneous Interphases and Nondilute Fiber Volume Fractions," *International Journal of Solids and Structures*, Vol. 31, No. 15, pp. 2053-2070, (1994).
45. A. Kaw, J. Ye, "Comparison of Fracture Mechanics Models with Axisymmetric and Planar Assumptions," *Composites Engineering Journal*, Vol. 4, No. 6, pp. 621-636, (1994).
46. A. Kaw, D. Jadhav, "Axisymmetric Elastic Response of a Composite Cylinder with a Broken Fiber," *Theoretical and Applied Fracture Mechanics*, Vol. 21, pp. 197-206, (1994).
47. V. Bechel, A. Kaw, "On Using a Symbolic Manipulator in Teaching Classical Elasticity," *ASEE Computers in Education Journal*, Vol. 4, No. 2, pp. 55-59, (1994).
48. A. Kaw, N.J. Pagano, "Axisymmetric Thermoelastic Response of a Composite Cylinder Containing an Annular Crack," *Journal of Composite Materials*, Vol. 23, No. 6, pp. 540-571, (1993).
49. A. Kaw, K.S. Gadi, "Mechanics of Fiber-Reinforced Composites with Doubly Periodic Cracks," *Theoretical and Applied Fracture Mechanics*, Vol. 19, No. 3, pp. 173-182, (1993).
50. A. Kaw, D. Jadhav, G. Sudhakar, "On Solving Crack Problems in Fiber Reinforced Composites by Symbolic Manipulations," *Advances in Engineering Software and Workstations*, Vol. 16, No. 1, pp. 31-36, (1993).
51. A. Kaw, G.H. Besterfield, "Periodic Matrix Cracking in Brittle Matrix Composites," *International Journal of Solids and Structures*, Vol. 29, No. 10, pp. 1193-1207, (1992).
52. A. Kaw, A. Selvarathinam, G.H. Besterfield, "Comparison of Interphase Models for a Crack in Fiber Reinforced Composites," *Theoretical and Applied Fracture Mechanics*, Vol. 17, pp. 133-147, (1992).
53. A. Kaw, "Numerical Solutions of Strong Integrals in Hadamard's Sense," *IMSL Directions*, Vol. 9, No. 1, pp. 8-9, (1992).
54. A. Kaw, "An Instructional Interactive Aid for Mechanics of Composites," *International Journal of Mechanical Engineering Education*, Vol. 20, No. 3, pp. 213-229 (1992).
55. A. Kaw, G.H. Besterfield, "Effect of Interphases on Mechanical Behavior of Composites," *ASCE Journal of Engineering Mechanics*, Vol. 117, No. 11, pp. 2641-2658, (1991).
56. A. Kaw, V.G. Das, "A Crack in an Imperfect Interface in Composites," *Mechanics of Materials*, Vol. 11, pp. 295-322, (1991).
57. A. Kaw, J.G. Goree, "The Semi-Infinite Strip Problem in Mechanics of Composites," *ASTM Journal of Composite Technology and Research*, Vol. 13, No. 2, pp. 65-77, (1991).
58. A. Kaw, "Cauchy Singular Integral Equations with Logarithmic Singular Integrands in Solid Mechanics," *Mechanics Research Communications*, Vol. 18, No.5, pp. 261-268, (1991).
59. A. Kaw, "On Evaluating Integrals with Strongly Singular Integrands," *Advances in Engineering Software and Workstations*, Vol. 13, No. 2, pp. 84-103, (1991).
60. A. Kaw, J.G. Goree, "The Effect of Interleaves on Fracture of Laminated Composites: Part I - Analysis," *ASME Journal of Applied Mechanics*, Vol. 57, No. 1, pp. 168-174, (1990).
61. A. Kaw, J.G. Goree, "The Effect of Interleaves on Fracture of Laminated Composites: Part II - Solution and Results," *ASME Journal of Applied Mechanics*, Vol. 57, No. 1, pp. 175-181, (1990).
62. A. Kaw, "Some Simple Tools to Develop Educational Software," *The QuickBasic Journal*, Vol. 1, No. 3, pp. 23-29, (1990).
63. A. Kaw, J.G. Goree, "Analysis of Notched Laminates with Interlaminar Debonding," *Journal of Engineering Fracture Mechanics*, Vol. 22, No. 6, pp. 1013-1029, (1985).

MEDIA COVERAGE

1. How a Small Seminar Course Engaged Readers Everywhere, Chronicle of Higher Education, March 22, 2018.
2. Are Small Classes Best? It's Complicated, Chronicle of Higher Education, March 21, 2018.
3. USF Professor of Year Preps 'Last Lecture', WUSF News, April 10, 2014.
4. Interview with University Beat on USF Last Lecture, WUSF, April 3, 2014.
5. Quoted in "Step Online in Style," ASEE Prism, November 2013.
6. "Professor's Innovative Teaching Earns Him Prestigious Award," Tampa Bay Fox 13 News, September 30, 2013.
7. "Education is Broad-Based," Mail Today, September 3, 2013.
8. "American Professor of the Year Impresses BIT Pilani Students," Times of India, August 13, 2013.
9. "USF Welcomes Quartet of Best U.S. Professors," WUSF News, April 14, 2013.
10. "Four Best U.S. Professors Give Teaching Tips at USF," Tampa Bay Times, April 3, 2013.
11. "3 Things About Professor of the Year Autar Kaw," WUSF, February 12, 2013.
12. "U.S. Professor of the Year," WUSF Radio Interview, February 11, 2013.
13. "Open Education Resources," Radio Interview, Science World – Voice of America, January 28, 2013.
14. "USF Professor Honored as Best in America," Bay News 9, January 28, 2013.
15. "One Click Away: Online Courseware Promotes Free Access to Math Instruction," NSF Discoveries, January 17, 2013.
16. "USF Engineering Professor Autar Kaw Named 2012 U.S. Professor of The Year," Khasbaat, December 2012.
17. "Professor of the Year," India Abroad, November 30, 2012.
18. "India-born Autar Kaw is U.S. Professor of the Year," Daily News, November 21, 2012.
19. "Indian-American Autar Kaw named Professor of the Year," The Indian Express, November 21, 2012.
20. "India-Origin Professor Among Recipients of 2012 U.S. Professor of The Year Award," The Times of India, November 20, 2012.
21. "USF Professor Receives National Honor," The Tampa Tribune, November 16, 2012.
22. "USF Professor Wins Top National Award for Undergraduate Teaching," Tampa Bay Times, November 15, 2012.
23. "Professors of the Year," Inside Higher Education, November 15, 2012.
24. "The 4 Professors of the Year Advise Their Peers" Keep Learning and Adapting," Chronicle of Higher Education, November 15, 2012.
25. Quoted in "COVER STORY: BOLD EXPERIMENT Universities Face New Competition as Elite Schools Offer Course Certificates to the Online Masses," ASEE Prism, October 2012.
26. Quoted in "24/7 Tutor," ASEE Prism, January 2012.
27. Profiled in the article "A Standout in Class and Online," ASEE Prism, September 2011.
28. Profiled in an article on textbook affordability: "USF Prof Helps Students Beat the High Cost of Textbook," tbo.com, July 22, 2011.
29. Profiled in "Pioneering Open Content in Higher Ed," Campus Technology, July 8, 2010.
30. Congressional Record, "Honoring Dr. Autar Krishen Kaw," 108th Congress, 2003-04, Page E2087.
31. "Iraq War," WFLA Radio Interview, March 2003.

COLUMNS:

1. Let's Meet in the Middle - A Case for Universal Design Learning, Chronicle Vitae Voices, May 13, 2014.
2. The Case Against Multitasking, Chronicle Vitae Voices, January 8, 2014.
3. Confessions from a Supporter of Fully Guided Instruction, October 27, 2013.
4. Implementing Proven Strategies in Engineering Classroom, Faculty Voices, USF, Spring 2013.
5. The Real Deal About USF's Graduation Rate, Tampa Tribune, Opinion Editorial, November 30, 2007.
6. Loss Of PIP Won't Stem the Flood of Bloated Medical Bills, St Petersburg Times, Guest Column, September 27, 2007.
7. Reform Long Overdue In Pakistan, Painful As It May Be, Tampa Tribune, Commentary, November 8, 2007.
8. Hot Fuel Robbing You, Tampa Tribune, Commentary, June 22, 2007.
9. Ten Ways to be Green, St Petersburg Times, Guest Column, June 1, 2007.
10. Shame on You: Florida Medallion Scholar, Oracle, February 20, 2007.
11. You Never Call Me Anymore, St. Petersburg Times, Guest Column, November 17, 2006.
12. Universities Setting Tuition Need to Submit Categorical Plan, Tampa Tribune, Other Views, October 3, 2006.
13. The Da Vinci Code is Not a Major Threat to Christianity, Tampa Tribune, Excerpt published, May 16, 2006.
14. Stop Meddling in Our Schools, Tampa Tribune, November 7, 2005.
15. Like Combating Weeds, Fighting Terrorism, St. Petersburg Times, Guest Column, September 4, 2005.
16. USF Outsourcing Not True, Tampa Tribune, Opinion Editorial, May 20, 2004.
17. Block the Block Tuition Proposal, Tampa Tribune, Guest Column, April 10, 2004.
18. Crazy for Atkins' Diet, Tampa Tribune, Opinion Editorial, December 12, 2003.
19. Being Faithful to History, Tampa Tribune, Special Correspondent, February 1, 2003.
20. A Hope for Justice In Distant Homeland, Tampa Tribune, Opinion Editorial, June 10, 2002.
21. Should I Join the Cell Phone World? St Petersburg Times, Guest Column, August 27, 2000.
22. A Message of Congratulations and Advice to College Graduates, St Petersburg Times, Guest Column, June 11, 2000.
23. Alternative Advice to Graduates, The Tampa Tribune, Opinion Editorial, June 13, 2000.
24. SUVs: Be a Sport, Watch Out for Cars, St Petersburg Times, Guest Column, August 1, 1999.
25. Beyond Vengeance to Peace of Mind, The Tampa Tribune, Special Correspondent, December 5, 1998.

PATENTS

- D. Miller, A. Kaw, "Hybrid Body Armor," Patent#8881639, November 11, 2014.
- R. Starowesky, C.Pena, A. Kaw, A. Yalcin, C. Vanderweerd, "Systems and methods for at-home monitoring of an individual," Patent#US11051086B1, June 29, 2021.

PANELS

- Are there limits to online learning, FOEE National Academy of Engineers Symposium, Irvine, CA, October 26, 2013.
- Flipping a Classroom, CIRTL Mini-Course Panelist, October 8, 2013.

Teaching successes and strategies, Student Success Conference, USF, Tampa, April 2013.

WORKSHOPS FACILITATED

Using a statistical tool for improvement of multiple-choice questions", Oct 4, First Friday Workshop, USF.

An in-class multiple-choice question grading scanner solution and best practices for writing multiple-choice questions", Nov 5, First Friday Workshop, USF.

Scholarship of Teaching and Learning, USF, May 2019.

Flipped Learning, ATLE, USF, April 2019

Experimentation with Grading, ATLE, USF, April 2019

Flipped Learning, Course Hero, 2019 Education Summit, Redwoods, CA, July 2019 (Invited)

Flipped Learning, UTEP, Malaysia, 2018.

Scholarship of Teaching and Learning, UTEP, Malaysia, 2018.

How to Increase Cognitive and Affective Gains in Student Performance, UTEP, Malaysia, 2018.

History and Development of MOOCs, UTEP, Malaysia, 2018.

A Holistic Workshop on Flipped Classes, ASEE Zone 2, San Juan, PR, 2017.

How to Use the Flipped Class to Teach Effectively, ASEE-SE, Gainesville, FL, 2015.

Case Study of a Flipped Class, Visiting KSU Faculty, USF, 2015

Using Clickers in the Classroom—An Evidence-Based Approach, USF, 2014.

Learning Strategies and Processes, USF, 2014

Practical Classroom Strategies, University Del Norte, Colombia, July 2013.

Workshop on Smart Teaching, School of Pharmacy, USF, May 31, 2013.

OTHER PUBLICATIONS:

1. A. Kaw, A. Yalcin, R. Braga Gomes, L. Serrano, Y. Lou, A. Scott, R. Clark, "Development, Implementation, Refining and Revising of Adaptive Platform Lessons for an Engineering Course," Proceedings of the ASEE Annual Conference & Exposition, Minneapolis, MN, June 26-29, 2022.
2. R. Clark, A. Kaw, R. Guldiken, "Do Metacognitive Instruction and Repeated Reflection Improve Outcomes?" Proceedings of the ASEE Annual Conference & Exposition, Minneapolis, MN, June 26-29, 2022.
3. A. Kaw, "On Moving a Face-to-Face Flipped Classroom to a Remote Setting.", Proceedings of the ASEE Virtual Annual Conference, June 2021.
4. A. Kaw, R. Clark, "Does the Use of Cumulative and Practice Tests Further Improve a Blended STEM Classroom?" Proceedings of the ASEE Virtual Annual Conference, June 2020.
5. A. Kaw, "Effect of Letting Students Choose the Weight of Each Assessment Category on Semester Grade," Proceedings of the ASEE-SE Annual Conference and Exposition, Auburn, AL, March 8-10, 2020.
6. A. Kaw, R. Clark, E. Delgado, N. Abate "Integrating Adaptive Learning Lessons in a Flipped STEM Course: Development, Learning Gains, and Data Analytics," Proceedings of the ASEE Annual Conference & Exposition, June 2019.
7. R. Clark, A. Kaw, E. Delgado, "Do Adaptive Lessons for Pre-class Experience Improve Flipped Learning?" Proceedings of ASEE Annual Conference and Exposition, Salt Lake City, UT, June 23-27, 2018.

8. A. Kaw, R. Clark, E. Delgado, "Work in Progress: Adaptive Lessons for Pre-Class Preparation for Flipped Classroom," Proceedings of the ASEE-SE Annual Conference, Daytona Beach, March 4-6, 2018.
9. R. Clark, A. Kaw, Y. Lou, A. Scott, M. Besterfield-Sacre, "Blended vs. Flipped Teaching: One Course-Three Engineering Schools," Proceedings of ASEE Annual Conference and Exposition, Columbus, OH, June 24-28, 2017.
10. A. Kaw, Y. Lou, A. Scott, R. Miller, "Building a Concept Inventory for Numerical Methods: A Chronology," Proceedings of ASEE Annual Conference and Exposition, New Orleans, LA, June 26-29, 2016.
11. R. Clark, A. Kaw, M. Besterfield-Sacre, A. Scott, "How Do You Like Your Course - Blended or Flipped? A Preliminary Comparison," Proceedings of ASEE Annual Conference and Exposition, Seattle, WA, June 14-17, 2015.
12. G. Aden-Buie, A. Kaw, A. Yalcin, "Are Multiple-Choice Questions Suitable for a Final Examination in a STEM Course?" Proceedings of ASEE Conference and Exposition, Atlanta, June 15-18, 2014.
13. R. Cartwright, A. Kaw, A. Yalcin, "Does It Matter Who Teaches A Core Mathematics Course To Engineering Undergraduates?" Proceedings of ASEE Conference and Exposition, Atlanta, June 23-26, 2013.
14. A. Kaw, A. Yalcin, D. Nguyen, R. Pendyala, M. Hess, G. Lee-Thomas, G. Besterfield, J. Eison, C. Owens, "A Holistic View on History, Development, Assessment, and Future of an Open Courseware in Numerical Methods," Proceedings of 2012 ASEE Conference & Exposition, San Antonio, TX, June 10-13, 2012.
15. G. Thomas, A. Kaw, A. Yalcin, "Using Online Endless Quizzes as Graded Homework," Proceedings of 2011 ASEE Conference & Exposition, Vancouver, Canada, June 26-29, 2011.
16. A. Kaw, A. Yalcin, "Does Collecting Homework Improve Examination Performance?" Proceedings of 2010 ASEE Conference & Exposition, Louisville, KY, June 20-23, 2010.
17. A. Kaw, S. Garapati, "Development of Digital Audiovisual Lectures for an Engineering Course: A YouTube Experience," Proceedings of the 2010 ASEE-SE Conference, Blacksburg, VA, April 18-20, 2010.
18. M. Hess, C. Owens, A. Kaw, "On Evaluating and Rating Online Resources for a Numerical Methods Course in Engineering," Proceedings of ASEE 2009 Conference in Austin, TX, June 15-18, 2009.
19. M. Hess, C. Owens, A. Kaw, "Evaluating the Impact of Web-Based Resources on Student Learning and Satisfaction: Lessons Learned for Postsecondary Courses," Proceedings of the 2008 AERA Conference in Denver, CO, Nov 5 -8, 2008.
20. A. Kaw, A. Yalcin, B. Demenezes, E. Allard, "Work in Progress - On Introducing Experiments in a Numerical Methods Course," Proceedings of the 2008 FIE Conference, Saratoga, NY, October 22-25, 2008.
21. A. Kaw, B. Demenezes, E. Allard, "Low Cost, Low Space, Low Setup Experiments for a Course in Numerical Methods," Proceedings of the ASEE-SE Conference, Memphis, TN, April 6-8, 2008.
22. A. Kaw, "Incorporating a Research Problem in a Numerical Methods Course for Mechanical Engineers," Proceedings of the ASEE Conference & Exposition, Honolulu, HI, June 24-27, 2007.
23. A. Kaw, M. Hess, "Assessing Teaching Methods for a Course in Numerical Methods," Proceedings of the ASEE Conference & Exposition, Chicago, IL, June 18-21, 2006.
24. M. Hess, A. Kaw, "Face-to-Face, or Hybrid Approaches to Instruction: An Evaluation of Four Delivery Methods in Numerical Methods Course," Proceedings of FERA, Jacksonville, FL, November 15-17, 2006.

25. A. Kaw, M. Hess, "Assessing Teaching Methods for a Course in Numerical Methods," Proceedings of the ASEE Conference, Chicago, IL, June 18-21, 2006.
26. A. Kaw, G.H. Besterfield, "Novel Web-Based Resources for Numerical Methods," Proceedings of Annual ASME Conference & Exposition, Nov 14-18, 2004, Anaheim, CA.
27. A. Kaw, M. Keteltas, J. Paul, J. Eison, G. Besterfield, "Web-Based Resources for a Course in Numerical Methods," Proceedings of the FIE Conference, Boulder, Nov 5-8, 2003.
28. A. Kaw, "Seven Traits of Highly Effective Engineering Educators," Proceedings of the ASEE Annual Conference & Exposition, June 22-25, 2003
29. G.H. Besterfield, S. Nichani, A. Kaw, T. Eason, T. Cherukara, "Avoiding Failures During Assembly of a Trunnion-Hub-Girder for Bascule Bridges," ASME Paper#DE71802, ASME International Mechanical Engineering Congress, November 17-22, 2002.
30. T. Cherukara, G.H. Besterfield, A. Kaw, "Parametric Analysis and Ultimate Testing of Bascule Trunnion Assemblies," Proceedings of Heavy Movable Structures, Inc. Ninth Biennial Symposium, October 23-25, 2002.
31. A. Kaw, G.H. Besterfield, S. Nichani, "Integrating a Research Problem in a Course in Applied Elasticity," Proceedings of ASEE-SE Section, Gainesville, FL, April 7-9, 2002.
32. G.H. Besterfield, T. Cherukara, A. Kaw, B. Ratnam, "Optimization of Trunnion-Hub-Girder Assemblies in Bascule Bridges," Proceedings of ICCE7, Denver, CO, July 2-8, 2000.
33. G.H. Besterfield, T. Cherukara, A. Kaw, B. Ratnam, "Failure Studies of Trunnion-Hub-Girder Assemblies in Bascule Bridges," Proceedings of ICCE6, Orlando, FL, June 27 - July 1, pp. 405-406, 1999.
34. A. Kaw, J. Ye, "Extraction of Mechanical Properties of the Fiber-Matrix Interface in Ceramic Matrix Composites," Proceedings of ICCE5, Las Vegas, NV, July 5-July 11, pp. 465-466, 1998.
35. A. Kaw, G.H. Besterfield, P. Krishnan, "Simulation of a Slice Compression Test," Proceedings of ASME Summer Annual Meeting, Evanston, IL, June 29- July 1, 1997.
36. A. Kaw, "PROMAL for WINDOWS: A Tool for Mechanics of Composites," ASME Summer Annual Meeting Workshop, Baltimore, MD, June 12-14, 1996.
37. A. Kaw, J. Ye, G.H. Besterfield, H. Madanraj, "Effect of Extrinsic Factors in the Push-Out Results," Micromechanics and Constitutive Modeling of Composite Materials, eds. Zbib, H., ASME, New York, pp. 165-180, 1995.
38. A. Kaw, S. Kunchithpatham, N.J. Pagano, "Axisymmetric Thermoelastic Response of a Composite Cylinder with Matrix Cracking and a Frictional Fiber-Matrix Interface," Proceedings of First International Conference on Composites Engineering, New Orleans, LA, pp. 255-256, 1994.
39. A. Kaw, S. Chidambaranathan, "Fracture Mechanics of Brittle Matrix Composites with Frictional Interfaces," Proceedings of Eighteenth Mechanics of Composites Review, Dayton, OH, pp. 183-192, 1993.
40. V.T. Bechel, A. Kaw, "Effect of Nonhomogeneous Interphases and Nondilute Fiber Volume Fractions on Fracture Mechanics of Composites," Recent Advances in Structural Mechanics, eds. H.H. Chung and Y.W. Kwon, ASME, New York, NY, pp. 95-106, 1993.
41. A. Kaw, K.S. Gadi, "Mechanics of Parallel Periodic Collinear Cracks in Brittle Matrix Composites," Damage Mechanics in Composites, eds. D.H. Allen and D.C. Logoudos, ASME, New York, NY, pp. 13-30, 1992.
42. A. Kaw, G.H. Besterfield, "On Mechanics of Periodic Matrix Cracks in Brittle Matrix Fiber Reinforced Composites," Proceedings of the 6th Japan-US Conference on Composite Materials, Technomic Publishers, Lancaster, PA, pp. 474-482, 1992.

43. A. Kaw, D. Jadhav, G. Sudhakar, "Solving a Fracture Problem in Fiber Reinforced Composite Materials through Symbolic Manipulation," Engineering Science Preprint, 28th Engineering Science Conference, University of Florida, Gainesville, November 6-8, 1991.
44. A. Kaw, A. Selvarithanam, G.H. Besterfield, "Comparison of Interphase Models for a Fracture Problem in Composite Materials," Proceedings of the 22nd Midwestern Theoretical and Applied Mechanics Conference, Rolla, MO, October 6-8, 1991.
45. G.H. Besterfield, C. Rachakonda, A. Kaw, "Probabilistic Fiber Pullout in Composite Materials," Proceedings of the First US National Congress on Computational Mechanics, Chicago, July 21-24, 1991.
46. G.H. Besterfield, K. Aysola, A. Kaw, "Probabilistic Macromechanics Composite Analysis," Proceedings of the First US National Congress on Computational Mechanics, Chicago, July 21-24, 1991.
47. A. Kaw, S. Jourdenais, "PROMAL: A Computer-Aided Instruction Program for Mechanics of Composite Materials," Proceedings of Annual ASEE Conference, New Orleans, June 16-20, 1991.
48. A. Kaw, G. H. Besterfield, "Mechanical Behavior of Composites with an Interphase," Mechanics Computing in the 1990s and Beyond, eds. H. Adeli and R.L. Sierakowski, ASCE, New York, pp. 1113-1117, 1991.
49. A. Kaw, V.G. Das, "A Crack in Tension in an Imperfect Interface," Proceedings of the Second Pan American Congress of Applied Mechanics, Valparaiso, Chile, January 2-5, 1991.
50. A. Kaw, "Solution of Integral Equations with Cauchy Singularity and Logarithmically Singular Integrand," Proceedings of 26th Engineering Science Conference, University of Michigan, Ann Arbor, September 18-20, 1989.
51. A. Kaw, "Mechanics of Composite Materials," Final Report of the Florida Space Research and Development Workshop, Orlando, February 8-9, 1989.
52. A. Kaw, J.G. Goree, "Stresses in a Semi-Infinite Problem," Engineering Science Preprint (Paper No. ESP25.88015) First Joint Applied Mechanics and Engineering Science Conference, University of California, Berkeley, June 20-22, 1988.
53. A. Kaw, J.G. Goree, "Damage Growth in Composite Laminates with Interleaves," Proceedings of the Sixth International Conference on Composite Materials, eds. F.L. Mathews, N.C.R. Buskell, J.M. Hodgkinson and J. Morton, Elsevier Applied Science, London, Vol. 3, pp. 3.146-3.154, 1987.
54. A. Kaw, J.G. Goree, "Analysis of Delamination of Composite Laminates," Engineering Mechanics in Civil Engineering, eds. A.P. Boresi and K.P. Chong, ASCE, New York, Vol. 1, pp. 102-105, 1984.

SOFTWARE:

1. G. Aden-Buie, A. Kaw, "MC Test Analysis," <https://pkg.garrickadenbuie.com/mctestanalysis/>, 2017
2. A. Kaw, D. Boston, "PROMAL 2012 for WINDOWS," University of South Florida, Tampa, August 2012.
3. A. Kaw, F. Urso, S.M. Jourdenais, A. Badstuebner, B. Shanberg, G. Willenbring, "PROMAL for WINDOWS," University of South Florida, Tampa, January 1996.
4. A. Kaw, F. Urso, S.M. Jourdenais, A. Badstuebner, "PROMAL: A PROgram for Macromechanical and Micromechanical Analysis of a Lamina/Laminate," Kern International Inc., Massachusetts, August 1990.
5. A. Kaw, F. Urso, S.M. Jourdenais, J.W. Meyers, "PROMAL: A PROgram for Macromechanical Analysis of a Lamina/Laminate," Kern International Inc., Massachusetts, March 1990.
6. A. Kaw, J.G. Goree, "An Instructional Interactive Package for Analysis of Composite Laminates," Clemson University, Clemson, SC, November 1984.

CONSULTANCY:

1. "A Short Course in Visual Basic," Leslie Controls, Tampa, FL, June 10- June 21, 1996.
2. "Strength of Brazed Joints of Wave Guide Extensions," Space Machine and Engineering Corporation, St. Petersburg, FL, August 1990.

GRADUATE STUDENT THESES AND SUPERVISING SUMMARY:

1. V.G. Das, "Analysis of Interface Cracks in Composite Structures," May 1990 (M.S.). *Employed by Intergraph, AL*

2. A.S. Selvarathinam, "Comparison of Interphase Models in a Fracture Problem in Fiber Reinforced Composites," August 1991 (M.S.).

Continued for Ph.D. at Clemson University.

Postdoctoral work at the University of Tennessee, Knoxville

Research Engineer, Lockheed Martin, TX

3. G. Sudhakar, "Mechanics of Multiple Cracks in Fiber Reinforced Brittle Matrix Composites," August 1992 (M.S.).

Posthumously awarded a Ph.D. from Clemson University

4. J. Dorula, "Effect of Debonding of Fiber-Matrix Interface on Transverse Stiffness of Composites," May 1993 (M.S.).

5. V. Bechel, "Effect of Nonhomogeneous Interphases and Global Fiber Volume Fraction on Mechanical Behavior of Composites," August 1993 (M.S.).

Received USF Graduate Fellowship

Received Sigma XI Master's Thesis Award

Continued Ph.D. at the University of Illinois at Urbana-Champaign

Employed as a Materials Research Engineer at Wright-Patterson AFB, OH.

6. D. Jadhav, "Analytical Modeling of a Fiber Crack in Fiber Reinforced Composites," December 1993 (M.S.).

7. S. Chidambaranathan, "Fracture Mechanics of Brittle Matrix Composites with Transversely Isotropic Fibers," December 1993 (M.S.).

Employed as Lecturer at Chidambaram University, India.

8. J. Ye, "Comparison of Fracture Mechanics Models with Axisymmetric and Planar Assumptions," May 1994 (M.S.).

Received USF Graduate Fellowship; Received ME Graduate Studies Award

Completed Ph.D. at USF under my guidance.

Employed by Verizon, Tampa.

9. S. Kunchithapatham, "Fracture Mechanics of Ceramic Matrix Composites with Imperfect Interfaces," May 1994 (M.S.).
10. K. Gangakhedkar, "Effect of Fiber/ Matrix Cluster Breaks in Fracture Mechanics of Composites," December 1995 (M.S.).
Received USF Graduate Fellowship
Employed by Phoenix Industries, CA.
11. P. Krishnan, "Finite Element Simulation of a Slice Compression Test," May 1997, (M.S.).
Employed by SDRI, Ohio
12. J. Ye, "Local Interaction Effects on Fracture Mechanics of Brittle Matrix Composites," December 1998, (Ph.D.).
Employed by Verizon, Tampa
13. M. Deepak, "A Computer-Aided Design Model for Fiber-Reinforced Pressure Vessels," May 1999(M.S.).
Employed by Software Engineer blackbaud.com
14. M. Denninger, "A Computer-Aided Design Tool for Bascule Bridge Trunnion Assembly," December 2000 (M.S.).
Received USF Graduate Fellowship
Employed by Sea World Parks and Entertainment, Orlando.
15. B. Ratnam, "Analysis of Trunnion Assembly Failures in Bascule Bridges," December 2000 (M.S.).
Received USF Graduate Fellowship
Employed by Westport Innovations
16. S. Nichani, "Experimental Investigation of Failure of Trunnion-Hub-Girder Assemblies in Bascule Bridges," August 2001 (M.S.)
Received USF Graduate Fellowship
Employed by Schlumberger
17. N. Collier, "Benefits of Staged Cooling of Composite Cylinders," May 2004 (M.S.).
Received Outstanding Masters' Thesis Award 2004.
Employed by Oakridge National Laboratories
18. J. Paul, "An Analytical Model for Thermal Stresses In Compound Cylinders With Temperature-Dependent Properties," May 2005 (M.S.).
Employed by Boston Scientific

19. T. Wasik, "Effect of Nonhomogeneous Interphases and Fiber Volume Fraction on Fracture Mechanics of Composite Materials," May 2005 (M.S.).

20. P. Chalasani, "Effect of Functionally Graded Interphases in Indentation Test," August 2006 (M.S.).
Employed by Wells Fargo

21. J. Daly, "Comparison of Indentation Tests," April 2007 (M.S.).
Employed by Pall Aerospace, FL.

22. S. Garapati, "Nanoindentation Tests: Synergizing Experimental, Analytical and Numerical Results," May 2009 (M.S.).
Employed by Optimum Engineering, Illinois

23. L. Snyder, "Comparing Three Assembly Procedures for a Fulcrum of a Bascule Bridge," December 2009 (M.S.).
Employed by Lockheed Martin, AK.

24. S. Caraballo, "Thermo-Mechanical Beam Element for Analyzing Stresses in Functionally Graded Materials," May 2011 (Ph.D.).
Employed by UNEXPO University, Venezuela

25. D. Miller, "Design and Analysis of an Innovative Semi-Flexible Hybrid Personal Body Armor System," May 2011 (M.S.).
Employed by Hatch Corporation and U.S. Navy Reserves.

26. M. Rajapakse, "Physically Meaningful Harmonization of Tire/Pavement Friction Measurement Devices," December 2011 (PhD-Co-advisor).
Employed by Smithers Rapra, Ohio.

27. J. Zitko, "Effects of Random Cross-Sectioned Distributions, Fiber Misalignment and Interphases in Three-Dimensional Composite Models on Transverse Shear Modulus," August 2012 (M.S.).
Employed by Jormac, Florida

28. S. Garapati, "Analytical and Numerical Modeling of Assembly Procedures of Steel Fulcra of Bascule Bridges," August 2013 (Ph.D.).
Employed by Optimum Engineering, Illinois

29. J. Tai, "Effect of Voids on Transverse Shear Modulus of Advanced Unidirectional Composites," December 2017 (M.S.).
Employed by Densitron Corporation

	TOTAL
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M.S. Thesis	28
M.S. Nonthesis	3
Ph.D.	4
TOTAL	35

UNDERGRADUATE STUDENT THESES:

- D. Boston, "Rewriting a Software Aid for Teaching Mechanics of Composite Materials," May 2012.
- M. Keteltas, "Development of web Based Modules for Numerical Methods," May 2004.
- K. Martin, "Development of Simulations for Simultaneous Linear Equations," May 2004.
- S. Friese, "Developing New Injection Molding Procedures," May 2000.
- C. Cunningham, "Development of Instructional Tools to Teach Numerical Methods," May 1998.

PROFESSIONAL SOCIETIES MEMBERSHIP

- ASME
- ASEE
- AAAS
- Phi Kappa Phi
- USF National Academy of Inventors

REFEREE SERVICE

Proposal Referee

- National Science Foundation
- Partner University Fund
- University of Missouri Rolla Research Program

Journal Referee

- ASME Journal of Applied Mechanics
- ASME Journal of Pressure Vessels Technology
- International Journal of Solids and Structures
- ASCE Journal of Engineering Mechanics
- SAE Transactions
- Composites: Part A
- International Journal of Damage Mechanics
- Engineering Fracture Mechanics
- Composites Engineering
- Mechanics of Research Communications
- International Journal of Engineering Education
- Computer Applications in Engineering Education
- Journal of Quantitative Analysis of Sports
- Applied Mathematics and Computation Journal

Advances in Engineering Education
Online Journal of Engineering Education
Anatomical Sciences Education

Conference Proceedings Referee

Proceedings of National ASEE Conference
Proceedings of Southeastern ASEE Conference
Proceedings of ASME Winter Annual Exposition
Proceedings of AIAA SMD Conference
Frontiers in Engineering Education Conference

External Review: Doctoral Dissertation

University of Sydney

Publisher Referee

Oxford Press
PWS-Kent
McGraw Hill
CRC Press
Prentice-Hall

External Review: Tenure and Promotion

University of Pittsburgh
University of Wyoming
Florida Institute of Technology
University of Miami
Miami (Ohio) University
University of Missouri Rolla
Boise State University

NATIONAL LEVEL SERVICE

Awards Committee Member, ASEE Mechanical Engineering Division (2019-21).
Guest Editor, ASEE Advances in Engineering Education, Flipped Classrooms in STEM, (2016).
Chronicle Vitae Luminary (2013-15).
Associate Editor, Online Journal of Engineering Education (2013-).
Collaborator, Bite-Size Engineering Challenges, www.learnerds.com (2014-17).
Reviewer, BITS Scholarship (2014-2016).
Reviewer, KOA Scholarship (2014).
Selection Panel, U.S. Professor of Year (2010-11, 2013-15).
Advisory Board, NSF CCLI Type II Grant, Collaborative Development and Application of Distributable, Internet Accessible, Interactive Medical Imaging Teaching Software and Dynamic Tracking System, University of Miami, FL (2011-13).

Selection Committee, ASEE National Teaching Medal (2012-15).
Co-Leader, Workshop Using WEB 2.0 Tools to Disseminate Curricular Materials, Washington DC, August 13-15, 2008.
Session Chair, 2008 FIE Conference, Saratoga, NY, October 22-25, 2008.
Session Moderator, Annual ASEE Conference & Exposition, Honolulu, HI, June 24-27, 2007.
Awards Chair, ASEE Mechanics Division (2005-06).
Session Chair, FIE, Boulder, Nov 5-8, 2003.
Symposium Chair, ICCE/5, Las Vegas, NV, July 5- July 11, 1998.
Symposium Co-Organizer, ASME Summer Annual Meeting, Chicago, Illinois, June 29 - July 1, 1997.
Member, ASEE Mechanics Software Committee (1992-98).
Symposium Co-Organizer & Session Chair, ASME Summer Annual Meeting, Baltimore, Maryland, June 12-14, 1996.
Panel Discussion on Computing in Undergraduate Mechanics, ASME Summer Annual Meeting, Baltimore, Maryland, June 12-14, 1996.
Member of Scientific Committee, Session Organizer & Session Chair, 27th Annual Society of Engineering Science Conference, Santa Fe, New Mexico, October 21-25, 1990.
Member of Technical Committee, Session Organizer & Session Chair, 28th Annual Society of Engineering Science Conference, Gainesville, Florida, November 6-8, 1991.

REGIONAL LEVEL SERVICE:

Selection Committee, ASEE Southeastern Section Teaching Awards Committee (2011-14).
Associate Editor, ASME ECTC (2009-11).
Session Moderator, ASEE Southeastern Section (2008).
Secretary, Southeastern Mechanical Engineering Division, ASEE (1998-99).
Registration/Plus Chairman, Student Design Contest Advisor, and Session Chairman of Final Oral Guard Presentations, ASME Region XI RAC/RSC/ Career Fair, Tampa, FL, March 30-31, 1990.
Member, Executive Committee, Florida West Coast Chapter of ASME (1989-90, 2007-11, 12-).

UNIVERSITY SERVICE:

Member, Teaching and Learning Advisory Panel, (2021-22).
Member, Faculty Champion, (2020-21).
Workshop on Flipped Classrooms, USF, (2019).
Panelist on Classroom Activities, USF, (2019).
Workshops on Use of Clickers, USF, (2014).
Workshops on Learning Strategies, USF, (2014).
Member, Advisory Board for Academy for Teaching and Learning Excellence, USF, (2013-15).
Member, Provost Award Teaching Assistant Award Committee, USF, (2013-14).
Member, Scholarship of Teaching and Learning Committee, USF, (2012).
Panelist, Faces of Success Workshop, USF, (2012).
Member, Selection Panel, Provost TA Award, USF, (2012).
Member, Learning Management System Evaluation, USF, (2012).
Member, Instructional Space Committee, USF, (2010-11).

Member, Task Force Course Instruction, USF, (2009-11).
Member, Textbook Affordability Committee, USF, (2009-11).
Reviewer, Division of Sponsored Research Proposals, USF, (2005).
Member, Provost Search Committee, USF, (2003-04).
Member, Asian Alliance Committee, USF, (2003-04).
Mentor, Summer REAP Program, USF, (2002, 2004).
Member, Student Admissions Committee, USF, (1994-97).
Member, Faculty Senate, USF, (1994-96).
Member, Numerically Intensive Computing Committee, USF, (1991-93).
Member, Undergraduate Council Committee, USF, (1988-91).
Mentor, Minority Student Research, Center of Excellence, USF, (1989-90).
Judge, International Gas Turbine Institute Scholarship Award, (1989).
Speaker, Research Techniques Seminar for Minority Students, Center of Excellence, USF, (1989-90).

COLLEGE SERVICE:

Inaugural Member, USF Academy of Distinguished Engineering Educators (2018-21).
College Board Presentation on MOOCs (2013).
Judge, Research Day Posters, USF (2011, 2016).
Member, Outstanding Undergraduate Teaching Award Committee, USF (2009).
Member, Distinguished Professor Committee, USF (2009).
Instructor, FES Engineering in Training Examination Review, USF (2007- , 1991).
Chair, Associate Dean of Research Search Committee, USF (2007-08).
Member, Computer Committee, USF (2008-11, 1993-96).
Faculty Advisor, Engineers without Borders (2007).
Member, College Governance Committee, USF (2004-07, 1996-99).
Chair, College Mathematics Course Committee, USF (2000).
Chair, Academic Dishonesty Committee (Ad hoc), USF (1999).
Member, College Assigned Duties Committee, USF (1999).
Member, Teaching Awards Committee, USF (1998, 97, 95, 94, 90).
Member, Civil Engineering Faculty Search Committee, USF (1993).
Member, Student/Faculty Hearing Committee on Academic Dishonesty, USF (1989).
Member, Minority Director Search Committee, USF (1987-88).

DEPARTMENT SERVICE:

Member, ABET Assessment Committee, USF, 2018.
Member, ABET Preparation Committee, USF 2013.
Member, Faculty Search Committee, USF (2022- ,2017-18, 12-15, 11-12, 09-10, 04-05, 87-88, 90-91, 92-93).
Member, T&P Committee, USF (1992-).
Member, ABET and Undergraduate Curriculum Committee, USF (1999-).
Chair, T&P Committee, USF (2005-08).

Member, Scholarship Committee, USF (2005-2010).
Member, Faculty Enrichment Recruitment Committee, USF (2003-04).
Chair, Merit Pool Raise Committee, USF (2000).
Chair, Faculty Search Committee, USF (1999-2000).
Webmaster, Departmental Website, USF (1999-2011).
Chair, Progress Toward Tenure Committee, USF (2001-08).
Undergraduate Advisor, USF (1996-2000).
Chairman, Sustained Performance Committee, USF (1998-2000).
Chair, Promotion and Tenure Committee, USF (1997-98).
Chair, WWW Computer Committee, USF (1994-98).
Member, Department Head Search Committee, USF (1997-98, 1989-90).
Advisor, Strain Gage Weight Machine, USF (Winner of EXPO Undergraduate Display, 1997).
Chair, Media Citations, and Relations, USF (1995-97).
Chair, Undergraduate Course Curriculum Committee, USF (1992-94).
Graduate Student Coordinator and Advisor, USF (1988-90).
Member, Graduate Affairs Committee, USF (1991-94).
Faculty Advisor, ASME Student Chapter, USF (1989-90).
Organizer, ASME Student Paper Night, Florida West Coast Chapter, Tampa (1990).

COMMUNITY SERVICE:

Webmaster, ASME FWCS (2008-12, 2013-17).
Reviewer, BITS Travel Scholarships (2010-).
Awards Chair, ASME FWCS (2007-08).
College Relations, ASME FWCS (2006-07).
Judge, Student Presentations, ASME FWCS (2006).
Member, Advisory Board, Tampa Bay Tech (2001-03).
Judge, State of Florida Science Fair, Orlando (April 1999).
Captain and Judge, State of Florida Science Fair, Lakeland (April 1998).
Great American Teach-In, Tampa (November 2003, 2001, 1999, 1998, 1997, 1995).
Judge, State of Florida Science Fair, Orlando (April 1996).
Consultant, Odyssey of Mind School Competition (1995, 1996).
Judge, State of Florida Science Fair, Tampa (March 1994).
Judge, Ridgewood High School Science Fair, New Port Richey (January 1989).
Judge, SAMES, Sixth Annual Engineering and Science Competition, Tampa (March 1989).
Judge, State of Florida Forensics Program Tournament, Tampa (February 1989).

COURSES TAUGHT:

Programming Concepts for Mechanical Engineers (Developed)
Computational Methods Laboratory (Developed)
Introduction to Visual Basic (Developed)
Mechanics of Composite Materials (Developed)

Computational Methods (Developed)
Applied Elasticity
Advanced Strength of Materials
System Dynamics
Mechanics of Materials

INDEPENDENT STUDY, RESEARCH EXPERIENCE & SENIOR DESIGN PROJECTS:

Multifunctional Dog Wagon
Multifunctional Cooling Fan for Portable Computers
Developing Adaptive Lessons for Numerical Methods
Data Analytics from an Adaptive Platform
Exit, Occupancy, and Weight of a Person in Bed
Bicycle Battery Charger
JavaScript Simulations for Numerical Methods
Beam Bending Experiment
Aluminum Cylinder Heat Transfer Experiment
Development of Wolfram Demos for Numerical Methods
Vacuum Infusion in Composite Materials
Simulations for Numerical Methods
Computerized Multiple-Choice Questions for the Computer Simulation Course
Use of Symbolic Manipulation in Teaching Classical Elasticity Course
Computational Methods Online Course
Finite Element Model for Balsa Wood Structure
Educational Software for Computer Methods
Teaching Tools for Composite Materials
Debating between the S.I. System and the U.S. Customary System
New Applications in Composite Materials
FEM Models for Elasticity
Software Tools for Computer Methods
Design of Theft Proof License Plates for Cars
Development of Instructional Software for Mechanics of Composites
Development of Historical Essays on Numerical Methods
WWW pages for Mechanical Engineering Department
Analyzing Residential Water Sprinklers
Development of a website for Mechanics of Composite Materials
Development of a Finite Difference Model for Cylindrical Assemblies
Development of Numerical Simulations Based on MathCAD

PRESENTATIONS

1. R. Clark, A. Kaw, R. Guldiken, "Do Metacognitive Instruction and Repeated Reflection Improve Outcomes?" ASEE Annual Conference & Exposition, Minneapolis, MN, June 26-29, 2022.

2. A. Kaw, A. Yalcin, R. Braga Gomes, L. Serrano, Y. Lou, A. Scott, R. Clark, "Development, Implementation, Refining and Revising of Adaptive Platform Lessons for an Engineering Course," ASEE Annual Conference & Exposition, Minneapolis, MN, June 26-29, 2022.
3. R. Clark, A. Kaw, "Improving the Online Flipped Classroom Experience and Student Performance Via Adaptive Learning," AAAS-IUSE Conference, Washington DC, June 1-3, 2022.
4. A. Kaw, "On Moving a Face-to-Face Flipped Classroom to a Remote Setting," ASEE Virtual Annual Conference, June 2021.
5. A. Kaw, M. Pandey, "Simulation for Numerical Methods," IUSE conference - AAAS-IUSE SUMMER LABS Catalyzing inclusive, transformative undergraduate STEM education, June 3 - June 29, 2021
6. R. Clark, A. Kaw, A. Yalcin, "Did Online Flipped Learning Improve Through Pre-class Adaptive Lessons?" CIRCLS'21 Convening, September 14-15, 2021.
7. A. Kaw, "On Teaching a Flipped STEM Course Remotely," 2021 Sunshine State Teaching & Learning Conference, January 29, 2021.
8. A. Kaw, R. Clark, "Does the Use of Cumulative and Practice Tests Further Improve a Blended STEM Classroom?" Proceedings of ASEE Virtual Annual Conference, June 2020.
9. A. Kaw, "Effect of Letting Students Choose the Weight of Each Assessment Category On Semester," Proceedings of ASEE-SE Annual Conference, Auburn, AL, March 8-10, 2020.
10. A. Kaw, R. Clark, E. Delgado, N. Abate "Integrating Adaptive Learning Lessons in a Flipped STEM Course: Development, Learning Gains, and Data Analytics," ASEE Annual Conference & Exposition, June 2019.
11. "A Solution to the Paradox of Choices - Lecturing, Flipped, Blended, ..." Mechanics Division Banquet Speaker (**invited**), 2019 ASEE Annual Conference & Exposition, June 18, 2019.
12. A. Kaw, "Journey of an Open Courseware," ASEE Annual Conference and Exposition, Salt Lake City, UT, June 23-27, 2018, (**Invited Presentation - Convivium Speaker for Mechanical Engineering Division**)
13. R. Clark, A. Kaw, E. Delgado, "Do Adaptive Lessons for Pre-class Experience Improve Flipped Learning?" ASEE Annual Conference and Exposition, Salt Lake City, UT, June 23-27, 2018.
14. A. Kaw, R. Clark, E. Delgado, "Work in Progress: Adaptive Lessons for Pre-Class Preparation for Flipped Classroom," ASEE-SE Annual Conference, Daytona Beach, March 4-6, 2018.
15. R. Clark, A. Kaw, Y. Lou, A. Scott, M. Besterfield-Sacre, "Blended vs. Flipped Teaching: One Course-Three Engineering Schools," ASEE Annual Conference and Exposition, Columbus, OH, June 24-28, 2017.
16. A. Kaw, Y. Lou, A. Scott, R. Miller, "Building a Concept Inventory for Numerical Methods: A Chronology," ASEE Annual Conference and Exposition, New Orleans, LA, June 26-29, 2016.
17. A. Kaw, R. Clark, M. Besterfield-Sacre, Y. Lou, A. Scott, "Flipped vs. Blended (Not Traditional) Course: A Comparison of Student Cognitive and Affective Learning Gains," AAAS/NSF Envisioning the Future of Undergraduate STEM Education (EnFUSE): Research and Practice, Washington D.C., April 27-29, 2016.
18. R. Clark, A. Kaw, M. Besterfield-Sacre, A. Scott, "How Do You Like Your Course - Blended or Flipped? A Preliminary Comparison," Proceedings of ASEE Annual Conference and Exposition, Seattle, WA, June 14-17, 2015.
19. A. Kaw, "International Education at University of South Florida," Overseas Association for College Admission Counseling (OACAC), Tampa, FL, July 7-10, 2014 (**Invited Speaker**).
20. G. Aden-Buie, A. Kaw, A. Yalcin, R. Pendyala, "Are Multiple-Choice Questions Suitable for a Final Examination in a STEM Course?" ASEE Annual Conference and Exposition, Indianapolis, IN, June

15-18, 2014.

21. A. Kaw, "Best Practices of Flipped Classrooms," ASEE-SE Annual Conference, Macon, GA, March 30- April 1, 2014.
22. A. Kaw, "How Do We Learn?" ASME FWCS, Tampa, FL, November 7, 2013 (**Invited Speaker**).
23. A. Kaw, Speaker, and Panelist, "Are There Limits of Online Learning," National Academy of Engineers: Frontiers of Engineering Education Symposium, October 27-29, 2013 (**Invited Speaker**).
24. A. Kaw, "How Can We Learn," BITS, Pilani, India, August 8, 2013 (**Invited Speaker**).
25. A. Kaw, "How Do We Learn," DTU, New Delhi, India, August 6, 2013 (**Invited Speaker**).
26. R. Cartwright, A. Kaw, A. Yalcin, "Does It Matter Who Teaches A Core Mathematics Course to Engineering Undergraduates?" 2013 ASEE Conference, and Exposition, Atlanta, June 23-26, 2013.
27. A. Kaw, A. Yalcin, D. Nguyen, R. Pendyala, M. Hess, G. Lee-Thomas, G. Besterfield, J. Eison, C. Owens, "A Holistic View on History, Development, Assessment, and Future of an Open Courseware in Numerical Methods," Proceedings of 2012 ASEE Conference & Exposition, San Antonio, TX, June 10-13, 2012.
28. A. Kaw, "Holistic Numerical Methods: An Open Courseware," College of Engineering, University of Miami, February 23, 2012 (**Invited Speaker**).
29. A. Kaw, "Holistic Numerical Methods: An Open Courseware," Department of Mathematics, University of Nevada-Reno, September 6, 2011 (**Invited Speaker**).
30. G. Thomas, A. Kaw, A. Yalcin, "Using Online Endless Quizzes as Graded Homework," Proceedings of 2011 ASEE Conference & Exposition, Vancouver, Canada, June 26-29, 2011.
31. A. Kaw, A. Yalcin, "Testing Concepts in a Numerical Methods Course," 2011 ASEE-SE Conference, Charleston, SC, April 10-12, 2011.
32. A. Kaw, A. Yalcin, "Does Collecting Homework Improve Examination Performance?" 2010 ASEE Conference & Exposition, Louisville, KY, June 20-23, 2010.
33. A. Kaw, S. Garapati, "Development of Digital Audiovisual Lectures for an Engineering Course: A YouTube Experience," 2010 ASEE-SE Conference, Blacksburg, VA, April 18-20, 2010.
34. M. Hess, C. Owens, A. Kaw, "On Evaluating and Rating Online Resources for a Numerical Methods Course in Engineering Work in Progress," ASEE 2009 Conference in Austin, TX, June 15-18, 2009.
35. M. Hess, C. Owens, A. Kaw, "Evaluating the Impact of Web-Based Resources on Student Learning and Satisfaction: Lessons Learned for Postsecondary Courses," 2008 AERA Conference, Denver, CO, November 5-8, 2008.
36. A. Kaw, A. Yalcin, B. Demenezes, E. Allard, "Work in Progress - On Introducing Experiments in a Numerical Methods Course," 2008 FIE Conference, Saratoga, NY, October 22-25, 2008.
37. A. Kaw, M. Hess, E. Kalu, S. Barnicki, D. Nguyen, "Dissemination of Numerical Methods Resources: Beyond the Textbook, Conference and a Paper," Inventions and Impact 2: Building Excellence in Undergraduate Science, Technology, Engineering, and Mathematics (STEM) Education, Washington DC, August 13-15, 2008.
38. M. Hess, A. Kaw, C. Owens, "Assessing Impact of Web-Based Resources on Student Learning and Satisfaction in a Numerical Methods Course," ASEE 2008 Conference in Pittsburg, PA, June 22-25, 2008.
39. A. Kaw, B. Demenezes, E. Allard, "Low Cost, Low Space, Low Setup Experiments for a Course in Numerical Methods," ASEE-SE Conference, Memphis, TN, April 6-8, 2008.
40. A. Kaw, "Problem Based Learning in the Classroom," Presentation to the Numerical Method Class, Civil Engineering, Old Dominion University, October 25, 2007 (**Invited Speaker**).
41. A. Kaw, "THG Assembly Procedure," Old Dominion University, Aerospace Seminar Series, October

26, 2007 (Invited Speaker).

42. A. Kaw, "Incorporating a Research Problem in a Numerical Methods Course for Mechanical Engineers," Annual ASEE Conference & Exposition, Honolulu, HI, June 24-27, 2007.
43. A. Kaw, M. Hess, "Assessing Teaching Methods for a Course in Numerical Methods," Annual ASEE Conference & Exposition, Chicago, IL, June 18-21, 2006.
44. M. Hess, A. Kaw, "Face-to-Face, or Hybrid Approaches to Instruction: An Evaluation of Four Delivery Methods in Numerical Methods Course," 2006 FERA, Jacksonville, FL, November 15-17, 2006.
45. A. Kaw, G.H. Besterfield, "Novel Web-Based Resources for Numerical Methods," ASME Curriculum Innovation Award Winning Invited Presentation, Annual ASME Conference, Nov 14-18, 2004, Anaheim, CA.
46. A. Kaw, G.H. Besterfield, J. Eison, "Assessment of Web-based Resources for Numerical Methods," Annual ASEE Conference & Exposition, June 20-23, 2004, Salt Lake City, Utah.
47. G.H. Besterfield, N. Pai, A. Kaw, and D.P. Hess, "Trunnion/Hub Study," Florida Department of Transportation (FDOT) / Florida Institute of Consulting Engineers (FICE) Design Conference 2004, July 12th - 14th, 2004, Orlando, Florida.
48. A. Kaw, M. Keteltas, J. Paul, J. Eison, G. Besterfield, "Web-Based Resources for a Course in Numerical Methods," FIE 2003, Boulder, Nov 5-8, 2003.
49. A. Kaw, "Seven Traits of Highly Effective Educators," ASEE Annual Conference & Exposition, Nashville, TN, June 22-25, 2003.
50. A. Kaw, S. Nichani, G.H. Besterfield, "Bringing a Real-World Problem to Elasticity," ASEE Annual Conference & Exposition, Nashville, TN, June 22-25, 2003.
51. A. Kaw, N. Collier, J. Eison, G.H. Besterfield, "Holistic Numerical Methods - A Customized Approach," ASEE Annual Conference & Exposition, Nashville, TN, June 22-25, 2003.
52. G.H. Besterfield, S. Nichani, A. Kaw, T. Eason, T. Cherukara, "Avoiding Failures During Assembly of a Trunnion-Hub-Girder for Bascule Bridges," ASME International Mechanical Engineering Congress, November 17-22, 2002.
53. T. Cherukara, G.H. Besterfield, A. Kaw, "Parametric Analysis and Ultimate Testing of Bascule Trunnion Assemblies," Heavy Movable Structures, Inc. Ninth Biennial Symposium, October 23-25, 2002.
54. A. Kaw, G.H. Besterfield, J. Eison, "Holistic Numerical Methods Prototype," NSF ECEG Conference, Washington DC, September 30 - October 1, 2002.
55. A. Kaw, G.H. Besterfield, S. Nichani, "Integrating a Research Problem in a Course in Applied Elasticity," ASEE-SE Section, Gainesville, FL, April 7-9, 2002.
56. G.H. Besterfield, T. Cherukara, A. Kaw, S. Nichani, "Trunnion-Hub-Girder Assemblies of Bascule Bridges," 8th Biennial Movable Bridge Symposium, Heavy Movable Structures, Inc., November 8-10, 2000, Orlando, FL.
57. G.H. Besterfield, T. Cherukara, A. Kaw, B. Ratnam, "Bascule Hub Research," Design Conference 2000 - Keeping Transportation Moving, FDOT, August 7 - 11, 2000, Orlando, FL.
58. G.H. Besterfield, T. Cherukara, A. Kaw, B. Ratnam, "Optimization of Trunnion-Hub-Girder Assemblies in Bascule Bridges," ICCE7, June 27 - July 1, 2000, Denver, CO.
59. G.H. Besterfield, T. Cherukara, A. Kaw, B. Ratnam, "Failure Studies of Trunnion-Hub-Girder Assemblies in Bascule Bridges," ICCE6, June 27 - July 1, 1999, Orlando, FL.
60. A. Kaw, J. Ye, "On Extracting Mechanical Properties of Fiber-Matrix Interface in Ceramic Matrix Composites Using The Push-Out Test," ICCE/5 Conference, Las Vegas, June 1998 (Invited Presentation).

61. A. Kaw, R. Rodriguez, "Synthesis of Tools to Teach Mechanics of Composite Materials," ASEE Southeastern Conference, Orlando, FL, April 5-7, 1998.
62. A. Kaw, G.H. Besterfield, P. Krishnan, "Simulation of a Slice Compression Test," ASME Summer Annual Meeting, Evanston, IL, June 29- July 1, 1997.
63. A. Kaw, "PROMAL for WINDOWS: A Tool for Mechanics of Composites," ASME Summer Annual Meeting Workshop, Baltimore, MD, June 12-14, 1996.
64. A. Kaw, S. Kunchithpatham, N.J. Pagano, "Stress Field in a Composite Cylinder with a Friction Fiber-Matrix Interface," ASEE Southeastern Conference Outstanding Contributions in Research Paper, Gatlinburg, May 1996 (**Invited Presentation- Luncheon Speaker**).
65. A. Kaw, G.H. Besterfield, H. Madanaraj, J. Ye, "Effect of Extrinsic and Intrinsic Factors in a Push-in Test," ASME Summer Annual Meeting, Los Angeles, CA, June 28-30, 1995 (Invited Presentation).
66. A. Kaw, S. Kunchithpatham, N.J. Pagano, "Axisymmetric Thermoelastic Response of a Composite Cylinder with Matrix Cracking and a Frictional Fiber-Matrix Interface," First International Conference on Composites Engineering, New Orleans, LA, August 28-31, 1994 (**Invited Presentation**).
67. A. Kaw, S. Chidambaranathan, "Fracture Mechanics of Brittle Matrix Composites with Frictional Interfaces," Eighteenth Mechanics of Composites Review, Dayton, OH, December 7-8, 1993 (**Invited Presentation**).
68. V.T. Bechel, A. Kaw, "Effect of Nonhomogeneous Interphases and Nondilute Fiber Volume Fractions on Fracture Mechanics of Composites," ASME Winter Annual Meeting Symposium on Recent Advances in Structural Mechanics, New Orleans, LA, November 28 - December 2, 1993.
69. A. Kaw, K.S. Gadi, "Mechanics of Parallel Periodic Collinear Cracks in Brittle Matrix Composites," 1992 ASME Winter Annual Meeting Symposium on Damage Mechanics in Composites, ASME, Anaheim, November 8-13, 1992.
70. A. Kaw, "Annular Cracks in Brittle Matrix Composites with Frictional Interfaces," Materials Laboratory, WPAFB, Dayton, Ohio, July 10, 1992.
71. A. Kaw, G.H. Besterfield, "On Mechanics of Periodic Matrix Cracks in Brittle Matrix Fiber Reinforced Composites," 6th Japan-US Conference on Composite Materials, Orlando, June 22-25, 1992.
72. A. Kaw, D. Jadhav, G. Sudhakar, "Solving a Fracture Problem in Fiber Reinforced Composite Materials through Symbolic Manipulation," 28th Engineering Science Conference, University of Florida, Gainesville, November 6-8, 1991.
73. A. Kaw, A. Selvarithanam, G.H. Besterfield, "Comparison of Interphase Models for a Fracture Problem in Composite Materials," Midwestern Theoretical and Applied Mechanics Conference, Rolla, MO, October 6-8, 1991, (Invited Presentation).
74. A. Kaw, "Annular Cracks in Brittle Matrix Composites," Materials Laboratory, WPAFB, Dayton, Ohio, August 5, 1991.
75. G.H. Besterfield, C. Rachakonda, A. Kaw, "Probabilistic Fiber Pullout in Composite Materials," First US National Congress on Computational Mechanics, Chicago, IL, July 21-24, 1991.
76. G.H. Besterfield, K. Aysola, A. Kaw, "Probabilistic Macromechanics Composite Analysis," First US National Congress on Computational Mechanics, Chicago, IL, July 21-24, 1991.
77. A. Kaw, S. Jourdenais, "PROMAL: A Computer-Aided Instruction Program for Mechanics of Composite Materials," Annual ASEE Conference, New Orleans, June 16-20, 1991, (Invited Presentation).
78. A. Kaw, G.H. Besterfield, "Mechanical Behavior of Composites with an Interphase" ASCE Engineering Mechanics Specialty Conference, Columbus, OH, May 19-22, 1991.

79. A. Kaw, V.G. Das, "A Crack in Tension in an Imperfect Interface," Second PACAM Conference, Valparaiso, Chile, January 2-5, 1991.
80. A. Kaw, "Industry-University Research Interests in Composites," Honeywell Clearwater, FL, July 19, 1990 (**Invited Presentation**).
81. A. Kaw, "Modeling of Interfaces in Fiber Reinforced Composites," Chemical Engineering Seminar Series, USF, Tampa, November 13, 1989 (**Invited Presentation**).
82. A. Kaw, "Solution of Integral Equations with Cauchy Singularity and Logarithmically Singular Integrand," 26th Engineering Science Conference, University of Michigan, Ann Arbor, September 18-20, 1989.
83. A. Kaw, "Mechanics of Composite Materials," Florida Space Research and Development Workshop, Orlando, February 8-9, 1989.
84. A. Kaw, J.G. Goree, "Stresses in a Semi-Infinite Problem," First Joint Applied Mechanics and Engineering Science Conference, University of California, Berkeley, June 20-22, 1988.
85. A. Kaw, J.G. Goree, "Damage Growth in Composite Laminates with Interleaves," Sixth International Conference on Composite Materials, Imperial College, London, UK, July 20-24, 1987.
86. A. Kaw, J.G. Goree, "Analysis of Composite Laminates with Interleaves," 23rd Annual Meeting of the Society of Engineering Science, State University of New York at Buffalo, New York, August 25-27, 1986 (**Invited Presentation**).
87. A. Kaw, J.G. Goree, "Analysis of Delamination of Composite Laminates," Fifth ASCE EMD Specialty Conference, University of Wyoming, Laramie, Wyoming, August 1-3, 1984.