

Summary of Vita

Alok K. Verma Ph.D., P.E., CMfgE

Research & Scholarly Work:

- 40 Journal papers
- 60 Peer reviewed papers in proceedings
- Authored one book, Edited two Conference Proceedings and two book chapter
- 57 technical reports
- 98 presentations at conferences
- Associate Editor for three International Journals

External Funding:

- External funding generation in excess of \$ 4,000,000.00
- Authored more than 17 proposals during the last five years

Keynote Address and Invited Papers:

- Delivered keynote address at several national & international conferences
- Several invited papers at educational institutions and international conferences

Teaching:

- Taught courses in Engineering Graphics, Manufacturing Processes and Materials, Dynamics, Fluid Mechanics Lab., Controls Lab., Advanced Manufacturing Processes, Robotics, Numerical Control in Production, Computer Integrated Manufacturing, Lean and Six Sigma & Senior Design Project.

Creative Work:

- Developed a program in Nuclear Engineering Technology for US Navy
- Developed the Distance Learning program in Mechanical Engineering Technology
- Developed a CD-ROM course in Dynamics for the Navy College
- Developed new curriculum with Manufacturing Concentration and five new courses
- Developed the Automated Manufacturing Laboratory at ODU

Professional Service:

- President – International Society of Agile Manufacturing (ISAM), 2007- Present
- Chief Editor – International Journal of Agile Manufacturing (IJAM), 2007 - Present
- Member advisory board – TCC – Industrial Technology Program and Design and Drafting Program
- Chair and Vice chair of MET department heads committee of ASME
- Associate Editor for two international journals
- Chaired and moderated several sessions in conferences
- General Chair, 5th International Conference on Robotics and Factories of the Future, 1990 and International Conference on Agile Manufacturing, 2006

Awards:

- Humanitarian Award – 2019 VCIC
- Isadore Davis Award – 2018 ASEE
- Ben Sparks Medal - ASME
- Provost's Award for Leadership in International Education
- Regional Alumni Award for Excellence – IIT-Kanpur Alumni Chapter
- Excellence in industry partnering award
- Outstanding MET faculty award and Most inspiring faculty award

Professional Certification and Licensing:

- Professional Engineer, Licensed in the state of Virginia
- Certified in Lean and Six Sigma
- Certified Manufacturing Engineer, SME
- Certificate of Professional Study in Engineering Management

ALOK K. VERMA

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EDUCATION:

Doctor of Philosophy, in Mechanical Engineering, Dissertation on Modeling Multilevel Supply Chain Systems, Old Dominion University, Norfolk, Virginia, 2005.

Certificate of Professional Study in Engineering Management, in Manufacturing Systems Old Dominion University, Norfolk, Virginia. 2000.

Master of Engineering in Engineering Mechanics, Old Dominion University, Norfolk, Virginia. 1981.

Bachelor of Science in Aeronautical Engineering, (5-year program), Indian Institute of Technology, Kanpur. 1978.

Short Courses and Workshops:

"Robotics: Concepts, Theory, and Applications," University of Michigan. 1984.

"Artificial Intelligence and Expert Systems," AUTOFACT '85, Detroit, MI. 1985.

"Machine Vision," Plymouth, MI. 1985.

EXPERIENCE:

Powell Chair Professor & Head of the Department, Marine Engineering Technology Dept. Texas A&M University- Galveston. 2020- Present.

Chair, Engineering Technology Dept., Old Dominion University. 2014 – 2017.

Ray Ferrari Professor, Old Dominion University. 2005 – 2020.

Director, Lean Institute, Old Dominion University. 2005 – 2014.

MET Program Director, Old Dominion University. 2004- 2008.

NASA Faculty Fellowship Program, NASA Langley Research Center, Summer 2005.

NASA Faculty Fellowship Program, NASA Langley Research Center, Summer 2003.

Summer Faculty Internship Program, Northrop Grumman Newport News, Summer 2002.

Interim Associate Dean, College of Engineering & Technology, Old Dominion University, January 1997- July 1997.

Program Director, Mechanical Engineering Technology, Old Dominion University, August 1995 - 1996.

Program Director & Assistant Chairman, Engineering Technology Department, Old Dominion University, January 1991 - 1995.

Chairman, Department of Mechanical Engineering Technology, Old Dominion University, May 1989 - December 1990.

Director, Automated Manufacturing Laboratory, Old Dominion University, 1988-2007.

Associate Professor, Old Dominion University, June 1987-2005.

Assistant Professor, Old Dominion University, June 1981- June 1987.

Research Assistant Professor, ODU at NASA Langley Research Center, Summer 1982 and 1983.

Graduate Research Assistant, ODU at NASA Langley Research Center, Summer 1979, 1980.

Intern, National Aeronautical Laboratory, Bangalore, India. Analyzed Wind Tunnel Data, June 1977.

KEYNOTE ADDRESSES & INVITED PAPERS

“Lean Implementation Models and Training with physical Simulations.”, Keynote address at the International Conference on Maintenance and Intelligent Asset Management, Manipal Institute of Technology, Bangalore January 17, 2020

“Optimizing Supply Chains to Enhance Organizational Agility.”, Keynote address at the XXII Annual Conference of the Society of Operations Management (SOM-2018), IIM Kozhikode, December 22, 2018

“Old Dominion University – Leader in Distance Learning- Graduate Programs.”, Invited talk delivered to students and faculty at the VR Siddhartha Engineering College in Vijayawada, Karnataka, December 13, 2018.

“Productivity Enhancement Philosophies and their Impact on Productivity”, Invited talk delivered to the faculty and students of the Aerospace Engineering program at Chandigarh University, Chandigarh, India, February 27, 2018.

“Productivity Enhancement Philosophies and their Impact on Productivity”, Invited talk delivered to the faculty and students of the Mechanical Engineering program at Chandigarh University,

Chandigarh, India, February 28, 2018.

“Assessment of Academic Programs in Engineering and ABET Accreditation”, Invited talk delivered to the faculty and administrators of Chandigarh University, Chandigarh, India, February 27, 2018.

“Lean Education in USA – A Higher Education Perspective.”, Invited talk as a distinguished speaker delivered at the 6th International Conference on Industrial Engineering and Operations Management Conference – IEOM 2016, Kuala Lumpur, Malaysia, March 8, 2016.

“Evolution of Productivity Enhancement Philosophies and their Impact on Productivity”, Invited talk delivered to the faculty and students of the CMR University, Bangalore, India, December 23, 2015.

“Lean and Six Sigma – their Convergence and Implementation”, Keynote address delivered at the 5th International & 26th All India Manufacturing Technology, Design and Research Conference – AIMTDR 2014, IIT Guwahati, India, December 10, 2014.

“Lean and Six Sigma – A Comprehensive & Powerful Management Philosophy for 21st Century”, Keynote address delivered at the International Conference on the Newest Drift in Mechanical Engineering, M. M. University, Mullana, India, December 20, 2014.

“Lean and Six Sigma Story”, Keynote address delivered at the IJAC/ISAM International Conference on Engineering & Technology, Orlando, Florida, September 26, 2014.

“Convergence of Two Powerful Philosophies - Lean and Six Sigma”, Invited talk delivered to the faculty and students of the Malaviya National Institute Technology, Jaipur, India, December 27, 2013.

“Preparing the Future Generation of Shipbuilders and Mariners – SBRC: A Successful Model.” Invited talk to the American Apprenticeship Round Table, Virginia Beach, Virginia, October 17, 2013.

“Recruiting the Future Generation of Shipbuilders and Mariners – Shipbuilding Repair and Maritime Career Day Events.” Invited talk to the Career and Technical Advisory Board for the State of Virginia, Richmond, January 23, 2013.

“Lean and Six Sigma – Their Convergence & Implementation”, Invited talk delivered to the faculty of Engineering at the Padre Conceicao College of Engineering, Goa, India, December 10, 2012.

“Lean Manufacturing Implementations Models Used by Shipbuilding and Repair Yards”, Keynote address delivered at BIT’s 1st Annual World Congress of Ocean-2012, Dalian, China.

“Lean and Six Sigma – Converging into One Powerful Philosophy”, Keynote address delivered at International Conference on Agile Manufacturing, Agra, India, December 18, 2011.

“Engaging K-12 Students in STEM Careers in Shipbuilding, Repair and Maritime Industry.” Presented to the Ship Operations Cooperative Program (SOCP), Dania, Florida, April 21, 2011

“Implementation of Lean and Six Sigma in Design and Manufacturing.” Presented to the Design and Manufacturing group of Timken India Ltd. Bangalore, India, January 12, 2011.

“An Introduction and application of Lean and Six Sigma in Governance.” Presented to faculty of Indian Institute of Public Administration, Delhi, India, August 28, 2009.

“Lean Product Design Processes: Case Studies in Design for Manufacturing in Shipbuilding.” Presented to faculty and students of Indian Institute of Technology, Delhi, India, August 27, 2009.

“Convergence of Two Powerful Philosophies: Lean and Six Sigma.” Presented to faculty and students of Dibrugarh University. Dibrugarh, Assam, India, August 20, 2009.

“Lean in Ship Repair and Maintenance-Engaging Coast Guard Maintenance Facilities.” Presented at the Coast Guard Industrial Management Conference, Norfolk, Virginia, August 2008.

“Lean Manufacturing & Six Sigma – Implications for Design and Manufacturing.” Alok K. Verma, Presented at the Student Alumni Interaction Meeting at the Indian Institute of Technology, Kanpur, India, January 4, 2008.

“Lean Manufacturing Research at ODU and Implementing Lean in Design Processes.” Alok K. Verma, Presented to the Faculty and Students of the Indian Institute of Technology, Guwahati, India, December 21, 2007.

“Lean Manufacturing & Six Sigma – A History of Organizational Productivity.” Alok K. Verma, Presented to the Faculty and Students of the University of Nagaland, Dimapur, India, December 20, 2007.

“Lean Manufacturing Research at Old Dominion University - Implementing Lean in Design Processes & Design Considerations.” Presentation at the Center for Product Design and Manufacturing at the Indian Institute of Science, Bangalore, India, December 2006

“Enhancing Student Learning – A Case for Physical Simulations in Classrooms.” IJME-INTERTECH 2006 Conference, Kean University, NJ. October 19-21, 2006.

“Enhancing Agility of Supply Chains using Stochastic Models and Simulations.” International Conference on Agility, Design and Manufacturing Summit, December 10-13, 2005, Bangalore, India.

“Distance Learning Program at Old Dominion University – Comparison of Student Performance for Distant & On-campus Students in Engineering Technology Programs.” 2nd International Conference on Technology, Knowledge and Society, Hyderabad, India, December 12 -15, 2005

“Moving Towards Lean Enterprise – A Goal for US Shipyards.” Keynote Address Delivered at the International Conference on Agile Manufacturing, Helsinki, Finland, July 27-28, 2005.

“Lean Implementation Models for Fleet Repair and Maintenance.” Invited Speaker at the

Defense Maintenance Conference, London, UK, March 8-9, 2004.

“Lean Implementation in Ship Repair and Maintenance.” Featured Speaker at the meeting of South Tidewater Association of Ship Repairers (STASR), Portsmouth, Virginia, February 17, 2004.

“Lean Implementation Models and their Impact on Productivity in Low Volume - High Variety Environment”, Keynote address delivered at International Conference on Agile Manufacturing, Beijing, China, December 4, 2003.

“Lean Manufacturing and its Impact on US Industries.” A key-note speech delivered at the International Conference on Agile Manufacturing for Cleaner products and Sustainability –Internet solutions. Bangalore, India, December 2002.

JOURNAL PAPERS:

Alhumadi A.; **A. Verma**; “Effect of Geometric Modifications on a Scramjet Combustor’s Performance.” *International Journal of Modern Engineering*”, submitted for publication in Spring 2020.

Alhumadi A.; **A. Verma**; “Computational Parametric Investigation of Scramjet Engine Performance.” *International Journal of Engineering Research & Innovation*”, submitted for publication in Fall 2019.

Jovanovic, V., Debevec, M., Herakovic, N., **Verma, A.**, Tomovic, M. M. (2016). “Applications of Digital Manufacturing in Manufacturing Process Support”, *Technology Interface International Journal (TIJ)*, Vol. 16. No. 2, Spring/Summer 2016.

Jovanovic, V. M., Tomovic, M. M., **Verma, A. K.**, Luetke, N., Branch, S. (2015) “Addressing New Skills Needed for the Automotive Industry through a Motorsports Educational Pathway” *Technology Interface International Journal*, Volume 16, Number 1, Fall/Winter 2015.

Verma, A; G. Selby; N. Brown; V. Jovanovic; N. Luetke “MarineTech Project – “Integrating Engineering Design Process in K-12 Curriculum in Virginia with Project-Based Learning.” *The Technology Interface International Journal* accepted for publication in Spring 2015 issue (2015) xx-xx.

Hans Raj, K; **A. Verma**; R. Setia; RS. Sharma; A. Sahai; S. Sharma; “Artificial Neural Network Modeling of Equal Channel Angular Pressing (ECAP) for Agile Manufacturing” *International Journal of Agile Manufacturing*, Volume 11, Issue 2, p 18-26, 2011.

Verma, A; M. Talaiver; S. McKinney; D. Dickerson; “Engaging Students in STEM Careers with Project Based Learning – MarineTech Project.” *Technology & Engineering Teacher*, Vol. 71, No. 1 (2011) p 25-31.

Lin C; **A. Verma**; “A Simplified One-Degree-of-Freedom System design for a Repeated Impact Tests.” *International Journal of Agile Manufacturing*, Volume 11, Issue 2, p 52-59, 2011.

Verma, A; M. Talaiver; S. McKinney; D. Dickerson; D. Chen “MarineTech Project - Attracting Students towards Math and Science Careers in Shipbuilding and Repair Industry.” *Journal of Ship Production*, Vol. 26, No. 1 (2010) 29-35.

Lin C; **A. Verma;** "Agile Modeling and Optimization of End Milling." *The Journal of Advanced Manufacturing Systems*, Vol. 11, No. 2 (2009) 17–21.

Erande A; **A. Verma;** "Comprehensive Agility Measurement Tool." *The Journal of Advanced Manufacturing Systems*, Vol. 11, No. 2 (2009) 37–42.

Hans Raj, K; R. S. Sharma; V. Upadhyay; **A. Verma;** "Agile Modeling and Optimization of End Milling." *The Journal of Advanced Manufacturing Systems*, Vol. 8, No. 1 (2009) 71–80.

Hans Raj, K; RS. Sharma; **A. Verma;** “Optimization of Hot Extrusion Process for Agile Manufacturing using Neuro-Fuzzy Hybrid Evolutionary Computing Technique.” *International Journal of Agile Manufacturing*, Volume-10, Issue-3, p 26-35, 2008.

Verma, A; “Stochastic Models for Enhancing Agility of Supply Chains.” *The International Journal of Applied Management and Technology*, Volume 5, Num 2, 2007.

Lin C; **A. Verma;** “Number of Independent Kinematic Parameters for the Calibration of a Closed-Loop Robot.” *International Journal of Agile Manufacturing*, Volume 10, Issue 1, p 29-36, 2007.

Hans Raj, K; RS. Sharma; V. Upadhyay; **A. Verma;** “Agile Modeling and Optimization of the Orthogonal Cutting Process.” *International Journal of Agile Manufacturing*, Volume 10, Issue 1, p 81-92, 2007.

Verma, A; C. Lin; A. Erande; “Enhancing Manufacturing Instruction in Lean Manufacturing Through Physical Simulations.” *International Journal of Agile Manufacturing*, Volume 10, Issue 1, p 55-64, 2007.

Verma, A; R. Nanjangud; “Assessment Tools for Lean Accounting.” *International Journal of Advanced Manufacturing Systems*, Volume 10, Issue 1, p 59-64, 2007.

Lin, C; **A. Verma;** “CAD Assembly Design for Geometric Dimensioning and Tolerancing.” *International Journal of Advanced Manufacturing Systems*, Volume 9, Issue 2, p 27-30, 2006.

Lin, C; **A. Verma;** “A Systematic Approach for Functional Gage Design in Geometric Dimensioning and Tolerancing.” *International Journal of Advanced Manufacturing Systems*, Volume 9, Issue 2, p 71-76, 2006.

Hans Raj, K; RS. Sharma; V. Upadhyay; **A. Verma;** “Neuro-Fuzzy Modeling of End Milling Process.” *International Journal of Agile Manufacturing*, Volume-9, Issue-2, p 29-36, 2006.

Hans Raj, K; RS. Sharma; R. Setia; V. Upadhyay; **A. Verma;** “Modeling of Micro End-Milling Operations with Artificial Neural Networks.” *International Journal of Agile Manufacturing*, Volume-9, Issue-2, p 99-104, 2006.

Verma, A; “Improving Agility of Supply Chains using Base Stock Model and Computer Based Simulations.” *International Journal of Physical Distribution and Logistics Management*,

Volume 36, Number 6, p 445-454, 2006.

Verma, A; S. Dhaygude; A. Sonje; “Lean Supply Chain Integration and Assessment – A Simulation Based Training Program.” *Submitted to Naval Engineers Journal*, 2005.

Verma, A; A. Sonje; “Enhancing Agility of Design Processes for Effective Implementation of Lean Enterprise in Shipbuilding Industry – A Simulation Activity.” *International Journal of Advanced Manufacturing Systems*, Special Issue on Lean, Volume 8, Issue 2, p 11-18

Verma, A; A. Sonje; “Improving Agility of Supply Chains using Base Stock Model and Physical Simulations – a Comparative Analysis.” *International Journal of Advanced Manufacturing Systems*, Special Issue on Lean, Volume 8, Issue 2, p 39-46, 2005.

Verma, A; A. Sonje; “A Comparison of Stochastic Inventory Models (Base Stock and (Q, r)) in Two-Tier Supply Chain”, *International Journal of Agile Manufacturing*, Volume-7, Issue-2, p 67-76, 2004.

Lin, C; **A. Verma;** “An Identification Algorithm for Robots with Joint Compliances and Link Deflections.” *International Journal of Agile Manufacturing*, Volume 7, Issue 2, p 85-90, 2004.

Verma, A; A. Ghadmode; H. Hirkannawar; “Lean Implementation Models and their Impact on Productivity in Low Volume - High Variety Environment” *International Journal of Agile Manufacturing*, Volume-7, Issue-2, p 11-16

Verma, A; H. Hirkannawar; “Assessment Tools for Lean Enterprise Implementation” *International Journal of Agile Manufacturing*, Volume-7, Issue-2, p 31-38, 2004.

Verma, A; “Parametric Study of Laser Beam Cutting (LBC) Process.” *International Journal of Advanced Manufacturing Systems*, Volume-7, Issue-2, p 65-68, 2004.

Verma, A; “Parametric Study of Water Jet Cutting (WJC) Process.” *International Journal of Advanced Manufacturing Systems*, Volume-7, Issue-2, p 69-73, 2004.

Verma, A; A. Ghadmode; “An Integrated Lean Implementation Model for Fleet Repair and Maintenance.” *Naval Engineers Journal*, Volume-116, Issue-4, p 79-89, 2004.

Lin, C; S. Hsuing; **A. Verma;** G. Crossman; “Design and Analysis of an Air-Filter Sensor for a Residential Heating and Cooling System.” *International Journal of Modern Engineering*, Volume 4, Number-2

Verma, A; S. Holcomb; Blessener; D. Tillman; W. Johnston; “Parametric Study of Surface Finish using Robust design Techniques.” *International Journal of Agile Manufacturing*, Volume 6, Issue 1, pg. 89-101, 2003.

Lin, C; **A. Verma;** “An Iterative Forward Transform Algorithm for Robots with joint Compliance and Link Deflections.” *International Journal of Advanced Manufacturing Systems*, Volume 6, Issue 1, pg. 91-102, 2003.

Verma, A; C. Lin; “Parametric Study of the Efficacy of Cutting Process in Abrasive Jet Machining (AJM).” *International Journal of Advanced Manufacturing Systems*, Volume 4, Issue 2, pg. 119-125, 2002.

Verma, A; “A Generic Cost Model for Laser Processing of Materials Based upon Cost Estimation for Traditional Machining.” *International Journal of Advanced Manufacturing Systems*, Volume 4, Issue 2, pg. 127-135, 2002.

El-Hady, N; **A. Verma;** "Instability of Compressible Boundary Layers along Curved Wall with Suction and Cooling." *AIAA Journal*, Vol. 22, No. 2, pages 206-213, 1984.

El-Hady, N; & **A. Verma;** (1084) "Goertler Instability of Compressible Boundary Layers." *AIAA Journal*, Volume 22, No 10, pages 1354-1355

CONFERENCE PUBLICATIONS:

Verma, A; “Best Practices in STEM Education – Lessons Learnt” *Proceedings of the International Consortium for Research in Science and Mathematics Education – ICRSME*”, San Jose, Costa Rica, March 12-16, 2019.

Verma, A., “*Institutionalizing Continuous Improvement Plan for Program Assessment*”, ICTIEE Conference, Madurai, India, Jan 8-10, 2018

Verma, A., Adams, S., Lin, C., Flory, I., and Escobales, N., “*Institutionalizing Continuous Improvement Plan in an Engineering Technology Department – Closing the Loop*”, ASEE Annual Conference, Columbus, OH, June 25-28, 2017

Jovanovic, V., Rodrigo, R., Mize, M., **Verma, A.** “*Use of ePortfolio as Integrated Learning Strategy in Computer Integrated Manufacturing Online Course*”, Engineering Technology Division, 2016 ASEE National Conference, June 26-29, New Orleans, LA.

Jovanovic, V., Popescu, O., Ayala, O., Tomovic, M., **Verma, A.** “*Embedding Online Based Learning Strategies into Engineering Technology Curriculum*”, Engineering Technology Division, 2016 ASEE National Conference, June 26-29, New Orleans, LA.

Lin, C., **Verma, A.,** Tomovic, M., and Jovanovic, V., “*An Asynchronous Course/Laboratory Development for Automation Controls*”, ASEE Annual Conference, New Orleans, LA, June 25-28, 2016

Verma, A; “Enhancing Agility of Supply Chains using Stochastic, Discrete Event and Physical Simulation Models.” *Proceedings of the 5th International & 26th All India Manufacturing Technology, Design and Research Conference – AIMTDR 2014*, IIT Guwahati, India, December 10-12, 2014.

Jovanovic, V., Michaeli, J. G., Popescu, O, Moustafa, M. R., Tomovic, M., **Verma, A.,** Lin, C. “*Implementing Mechatronics Design Methodology in Mechanical Engineering Technology Senior Design Projects at the Old Dominion University*” ASEE National Conference 2014, June 15-18, Indianapolis, IN, 2014.

Verma, A; “Stochastic Modeling and Validation of Three-tier Supply Chains using Multiple Tools.” *Proceedings of the Joint International Conference on Engineering & Technology–IAJC/ISAM*, Orlando, Florida, September 25-27, 2014.

Verma, A; G. Selby; N. Brown; V. Jovanovic and N. Luetke “Integrating Engineering design process in K-12 Curriculum in Virginia with project Based Learning.” *Proceedings of the Joint International Conference on Engineering & Technology–IAJC/ISAM*, Orlando, Florida, September 25-27, 2014.

Jovanovic, V; M. Debevec, N. Herakovic; **A. Verma;** and M. Tomovic; “Application of Digital Manufacturing in Manufacturing Process Support.” *Proceedings of the Joint International Conference on Engineering & Technology–IAJC/ISAM*, Orlando, Florida, September 25-27, 2014.

Jovanovic, V; M. Tomovic; **A. Verma;** N. Luetke and S. Branch; “Addressing new Skills Needs for the Automotive Industry through a Motorsports Educational Pathway.” *Proceedings of the Joint International Conference on Engineering & Technology–IAJC/ISAM*, Orlando, Florida, September 25-27, 2014.

Verma, A., McKinney, S., Brown, N. & Berube, C. “Stem and the Sea”. Society for Information Technology & Teacher Education International Conference. Vol. 2014, No. 1 (March 17, 2014) pp. 2803-2809.

Verma, A; A. Erande; A. Langlade; R. Macherla; “Measurement of Organizational Agility – An Assessment Tool. “*Proceedings of the 2nd International Conference on Intelligent Robotics, Automation and Manufacturing*”, I.I.T. Indore, India, December 17, 2013.

Jovanovic, V; **A. Verma;** M. Tomovic “Developing an Option in Mechatronics System Design within the Mechanical Engineering Technology Program.” *Proceedings of the 2013 International Forum on Systems and Mechatronics*, Guilin, China, July 22-25, 2013.

Jovanovic, V; **A. Verma;** M. Tomovic “Introduction to Mechatronics and Mechatronics System Design Course Development within the Mechanical Engineering Technology Program.” *Proceedings of the 11th Latin American and Caribbean Conference for Engineering and Technology –LACCEI 2013*, Cancun, Mexico, August 14-16, 2013.

Verma, A; D. Reider; “Impact of STEM Focused Project Based Learning Activities on Career Disposition of K-12 Students.” *Proceedings of the International Consortium for Research in Science and Mathematics Education –ICRSME*”, Granada, Nicaragua, March 13-16, 2013.

Verma, A; A. Erande; S. Shethna “Measurement of Organizational Agility – an Assessment Tool.” *Proceedings of the 2012 International Forum on Systems and Mechatronics*, Virginia Beach, VA, August 6-9, 2012.

Verma, A; “Impact of STEM Focused Project Based Learning Activities on Career Education for K-12 and Community College Students” *Proceedings of the ASEE Conference*, San Antonio, Texas, June 10-13, 2012.

Verma, A; Lalit K. Das; Prasanth Bollampalli, “Lean and Six Sigma in Creative Design Processes.” *Proceedings of the International Conference on Agile Manufacturing*, Agra, India, December 18-20, 2011.

Verma, A; “National Workforce Consortium for Shipbuilding and Repair – Collaborating for Global Competitiveness.” *Proceedings of the NSRP All Panel Meeting*, Newport News, Virginia, October 4-6, 2011.

Verma, A; “Creating Workforce for Marine Industry – Marine Tech and Marine Career Tech Projects.” *Proceedings of the NSRP All Panel Meeting*, Newport News, Virginia, October 4-6, 2011.

Verma, A; “Marine Kits- Promoting Inquiry Based Learning in Introduction to Engineering Class.” *Proceedings of the LEAN Educators Conference-2011*, University of Alabama Huntsville, Alabama, September 29 – October 1, 2011.

Verma, A; “Redesigning Freshmen Engineering Experience with Physical Simulations using Project Based Learning.” *Proceedings of the LEAN Educators Conference-2011*, University of Alabama Huntsville, Alabama, September 29 – October 1, 2011.

Verma, A; “Impact of Project Based Learning in Introduction to Engineering /Technology Class.” *Proceedings of the ASEE Conference*, Vancouver, Canada, June 26-29, 2011.

Verma, A; M. Talaiver; S. McKinney; D. Dickerson; S. Dwivedi; D. Chen “Attracting K-12 Students towards Engineering Disciplines with Project Based Learning Modules.” *Proceedings of the ASEE Conference*, Vancouver, Canada, June 26-29, 2011.

Verma, A; M. Talaiver; S. McKinney; D. Dickerson; S. Dwivedi; D. Chen “MarineTech Project – Engaging K-12 Students in Shipbuilding, Repair and Maritime Careers –SBRC D Project.” *Proceedings of the 22nd Annual International SITE 2011 Conference*, Nashville, TN March 7-11, 2011.

Verma, A; L. Das; A. Erande, “Creative Lean Design Process.” *Proceedings of the ICORD-2011 Conference*, Indian Institute of Science, Bangalore, India, Jan 9-12, 2011.

Dickerson, D.L., McKinney, S., **Verma, A.**, Horne, P., & Hotchkiss, R. Understandings of density and buoyancy. Presented at the Annual Meeting of the American Educational Research Association Conference, Denver, CO, May 2010.

Verma, A; “Redesigning Freshmen Engineering Experience with Physical Simulations using Project Based Learning.” *Proceedings of the LAI/LEAN Educators Conference-2010*, Embry Riddle University, Daytona Beach, FL, May 19 - 21, 2010.

Verma, A; S. McKinney; “Engaging Students in STEM Careers with Project Based Learning – MarineTech Project.” *Proceedings of the ICRSME XIII Conference*, Lamanzanilla, Mexico, March 9-12, 2010.

Verma, A; M. Talaiver; S. McKinney; D. Dickerson; S. Dwivedi; D. Chen “Project Based

Learning for STEM Education with Focus on Marine Industry - MarineTech Project.”
Proceedings of the HICE Conference, Honolulu, Hawaii, January 7-10, 2010.

Verma, A; “Marine Kits - Hands-on Activities to Engage Students.” *Proceedings of the VAST Conference*, Washington, DC, November 5-7, 2009.

Dickerson, D; P. Horne, R. Hotchkiss, S. McKinney, and A. Verma “MarineTech - Density, Buoyancy, and Boats.” *Proceedings of the VAST Conference*, Washington, DC, November 5-7, 2009.

Verma, A; M. Talaiver; S. McKinney; D. Dickerson; D. Chen “MarineTech Project - Attracting Students towards Math and Science Careers in Shipbuilding and Repair Industry.” *Proceedings of the SNAME Annual Conference*, Providence, RI, October 20-24, 2009.

Verma, A; H. Bao; T. Kulkarni “Demonstrating Impact of LEAN through a Business Process Simulation.” *Proceedings of the IERC-09 Conference*, Miami, FL, May 30 - June 3, 2009.

Verma, A; “Role of Industrial Advisory Committee in the Assessment and Continuous Improvement Process of Engineering Technology Programs.” *Proceedings of the ABET Best Practices Symposium*, Indianapolis, IN, April 3- 4, 2009.

Verma, A; S. Dhayagude, “Implementing Lean in the Design Processes – Validation using Physical Simulations.” *Proceedings of the ICORD-09 Conference*, Indian Institute of Science, Bangalore, India, Jan 6-10, 2009.

Hans Raj. K; RS. Sharma; **A. Verma**, “Optimization of Hot Extrusion Process for Agile Manufacturing Using Neuro-Fuzzy Hybrid Evolutionary Computational Technique.” *Proceedings of the International Conference on Agile Manufacturing*, Western Michigan University, July 16-18, 2008.

Erande. A; **A. Verma**; “Comprehensive Agility Measurement tool.” *Proceedings of the International Conference on Agile Manufacturing*, Western Michigan University, July 16-18, 2008.

Verma, A; “University Industry Partnership to Improve Future Workforce in Marine Industry.” *Proceedings of the SOCP Maritime Education Conference*, Linthicum Heights, MD, April 1-2, 2008.

Verma, A; “Outcome Based Assessment and Continuous Improvement Model for Engineering Technology Programs.” *Proceedings of the ASME International Congress*, Seattle, WA, November 11-15, 2007

Verma, A; “Enhancing Student Learning in Engineering Technology Programs – A Case for Physical Simulations.” *Proceedings of the ASEE Annual Conference*, Honolulu, HI, June 24-27, 2007.

Verma, A; C. Considine; “Improving Shipbuilding and Repair Workforce through Career Day Events.” *Proceedings of the LAI Plenary Conference*, Cambridge, MD, April 18, 2007.

Verma, A; G. Crossman; “An Assessment and Continuous Improvement Model for ET Programs.” *Proceedings of the CIEC 2007 conference*, Palm Springs, CA, February 6-9, 2007

Verma, A; “Stochastic Models for Enhancing Agility of Supply Chains.” *Proceedings of the IJME-INTERTECH 2006 Conference*, Kean University, NJ. October 19-21, 2006.

Dean, A; G. Crossman; “Developing a New Program in Marine Engineering Technology.” Tony Dean, Gary Crossman, **Alok K. Verma**, Issac L. Flory and Nidal Dahman, *Proceedings of the IJME-INTERTECH 2006 Conference*, Kean University, NJ. October 19-21, 2006.

Verma, A; “Lean Instruction and Research at ODU.” *Proceedings of the Annual Meeting of the LAI Ed Net Meeting*, Worcester Polytechnic University, MA, October 16-18, 2006.

Verma, A; J. Devulapalli; “Development of a Board Game Simulation Activity for Value Stream Mapping and Analysis Training.” *Proceedings of the Annual Meeting of the LAI Ed Net Meeting*, Worcester Polytechnic University, MA, October 16-18, 2006.

Verma, A; “Streamlining Production Scheduling through Physical Simulations.” *Proceedings of the Ship Production Symposium, SNAME Maritime Technology Conference*, Fort Lauderdale, FL, October 10-13, 2006.

Chowdiah, M; **A. Verma;** “Agility for 21st Century Enterprises.” *Proceedings of the International Conference on Agile Manufacturing*, July 18-21, 2006.

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Verma, A; “Lean Supply Chain Integration and Assessment – A Simulation Based Training Program.” *Proceedings of the 26th Annual ASEM Conference*, Virginia Beach, VA, October 26-29, 2005

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Verma, A; “Enhancing MET Curriculum with Applied Research Experience for Faculty - Parametric Study of Water Jet Cutting (WJC) Processes – A Case Study.” *Proceedings of the ASEE Annual Conference*, June 2004.

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Verma, A; “Automated Batch Assembly of Miniature Pressure Sensors used in Aerospace Industry.” *Paper Number 98-WA/MET, ASME International Congress*, November 1998.

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K. Hans Raj, **Verma, Alok,** Agile Manufacturing Systems, International Consortium for Research in Science and Mathematics Education, December 2011.

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Guest Editor, International Journal of Agile Manufacturing, Special Issue on ICAM-2006, Volume 9, Issue 2, 2006.

Editor - Proceedings of the "International Conference on Agile Manufacturing", Alok K. Verma July 2006.

Guest Editor, International Journal of Advanced Manufacturing Systems, Special Issue on Lean Manufacturing, Volume 8, Issue 2, 2005.

Editor, "CAD/CAM, Robotics and Factories of the Future". Two Volumes, Vol.-I, "Concurrent Engineering" and Vol.-II, "Flexible Automation". Springer-Verlag. Co-editors, Dr. Suren Dwivedi and Dr. John Sneckenberger, August 1991.

Contributing Author to "Engineering Exam File Series-Dynamics" published by Engineering Press, Inc., pages 2, 10, 19, 65, 74, 78, 174, 195, 330, and 340, 1985.

Contributing Author to "Robotics and Factories of the Future," published by Springer Verlag, pages 732-752, 1984.

CREATIVE WORKS:

Visited five premier institutions in India to establish linkages and to invite scholars for India Forum at ODU. The team met with representatives of Delhi University, Jamia Milia Islamia University, Indian Institute of Technology, Indian Institute of Science and Indian Institute of Management. Seven scholars visited ODU in November 2004 to participate in India Forum and two MOU's were signed as a result, 2004.

Developed a CD ROM based course in Dynamics for Navy College at ODU, 2002.

Developed a program in Nuclear Engineering Technology for the U.S. Navy, 1999.

Instrumental in establishment of Industrial Manufacturing Productivity Assessment Center (IMPAC) at ODU in 1996.

Visited Kuwait in 1996 along with the then Dean of College of Health Sciences to establish articulation agreements between the Engineering Technology Programs at ODU and the Public Authority of Applied Education and Training (PAAET). As a result of this agreement at least 20 fully funded students from Kuwait joined the engineering and technology programs in subsequent years, 1996.

Played a key role in developing proposal for the TechQuest Center through the Virginia Space Grant Consortium for the improvement of post-secondary education in the state of Virginia. Strand leader for High Performance Manufacturing group. 1994-95

Established an innovative televised upper-division program in Mechanical Engineering Technology for non-traditional students. This program is currently televised to more than 26 community college locations.

Initiated the effort to develop a new program in Automated Manufacturing.
Guided the effort for a major review of curriculum as chairman, which resulted in increased emphasis in project-oriented courses and increased utilization of computer-based instructions, 1989.

Played a key role in obtaining funding for the IBM CIM center at Old Dominion University. The College of Engineering and Technology was awarded more than \$2M of hardware and software and direct technical assistance.

Helped two school systems in Tidewater Area develop and teach pilot programs in robotics for gifted and talented students, 1987.

A proposal for the development of curriculum and laboratory in automated manufacturing engineering. The proposal presented a three-year plan for course offerings and discusses the equipment, budget, and space requirements. The proposal formed the basis for the development of Automated Manufacturing Laboratory at Old Dominion University, June 1983.

Developed five new courses- "Numerical Control in Design and Production", and "Introduction to Robotics", 1984; Advanced Manufacturing Processes, 1992; Computer Integrated Manufacturing, 1992; and Production Planning & Management, 1995.

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Verma, A; M. Talaiver; S. McKinney; D. Dickerson; S. Dwivedi; D. Chen “MarineTech

Project- Annual Report.” *National Science Foundation*, October 2009.

Verma, A; M. Talaiver; S. McKinney; D. Dickerson; “SCHEV- MarineTech Project- Annual Report.” *State Council for Higher Education*, July 2009.

Verma, A; C. Considine; C. Lin; “Shipbuilding and Repair Career Day Events – Final Report-III” *National Ship Building Research Program- Advanced Shipbuilding Enterprise*, Charleston, NC, July 31, 2008.

Verma, A; C. Considine; C. Lin; “Shipbuilding and Repair Career Day Events – Quarterly Report-III” *National Ship Building Research Program- Advanced Shipbuilding Enterprise*, Charleston, NC, March 20, 2008.

Verma, A; C. Considine; C. Lin; “Shipbuilding and Repair Career Day Events – Quarterly Report-II” *National Ship Building Research Program- Advanced Shipbuilding Enterprise*, Charleston, NC, September 20, 2007.

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Verma, A; “Program Assessment Report – MET Program.” June 2006.

Verma, A; “Preliminary Program Assessment Report – MET Program.” April 2006.

Verma, A; “Program Self Study for the degree of Bachelor of Science in Engineering Technology - Mechanical Engineering Technology Program.” *Submitted to the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology, Inc.*, June 2005.

Verma, A; “Addendum to the Program Self Study for the degree of Bachelor of Science in Engineering Technology - Mechanical Engineering Technology Program.” *Submitted to the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology, Inc.*, September 2005.

Verma, A; “Mechanical Engineering Technology Program, 14 Day Response to TAC of ABET Findings.” *Submitted to the Technology Accreditation Commission of the Accreditation Board*

for Engineering and Technology, Inc., October 2005.

Verma, A; “Enhancing Fabrication Work Order Process through Application of Lean Principles – *Final Report*”, *NASA Summer Faculty Fellowship Program, NASA Langley Research Center*, August 2005.

Verma, A; “Lean Enterprise Simulation Project – Final Report”, *National Ship Building Research Program- Advanced Shipbuilding Enterprise, Charleston, NC*, January 10, 2005.

Verma, A; “Training Program in Design - Lean Enterprise Simulation Project”, *National Ship Building Research Program- Advanced Shipbuilding Enterprise, Charleston, NC*, December 20, 2004.

Verma, A; “Training Program in Supply Chain - Lean Enterprise Simulation Project”, *National Ship Building Research Program- Advanced Shipbuilding Enterprise, Charleston, NC*, December 20, 2004.

Verma, A; “Training Program in Ship Repair - Lean Enterprise Simulation Project”, *National Ship Building Research Program- Advanced Shipbuilding Enterprise, Charleston, NC*, December 20, 2004.

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Verma, A; “Training Program in Scheduling - Lean Enterprise Simulation Project”, *National Ship Building Research Program- Advanced Shipbuilding Enterprise, Charleston, NC*, December 20, 2004.

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Verma, A; “Lean Enterprise Simulation Project – Third Quarterly Report”, *National Ship Building Research Program- Advanced Shipbuilding Enterprise, Charleston, NC*, September 20, 2004.

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Project, December 2004.

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Verma, A; “Simulation Tools and Training Programs in Lean Manufacturing – Current Status”, *Final Report- Phase-0, National Ship Building Research Program- Advanced Shipbuilding Enterprise*, Charleston, NC, October 19, 2003.

Verma, A; “Instructors Guide – Design for Manufacturing”, *Northrop Grumman Newport News- Apprentice School*, December 2003.

Verma, A; “Training Program – Design for Manufacturing”, *Northrop Grumman Newport News- Apprentice School*, December 2003.

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Verma, A; “Training Program –Lean Enterprise”, *Six Modules, Northrop Grumman Newport News- Apprentice School*, August 2003.

Verma, A; J. Hackworth; “Automated Battery Testing Machine” *Rebatt Inc., Newport News*, Virginia, November 30, 1998.

Verma, A; “Mobile Laboratory to Serve Multiple Sites in the 2+2 Engineering Technology Program” *Final Report submitted to NSF, Grant No. DUE-9452281*, August 1998.

Verma, A; “Automated Batch Assembly of Pressure Sensors” *Pressure Systems Inc., Hampton*, Virginia, July 1998.

Verma, A; J. Hackworth; “Design and Development of an Automated Electric Discharge Machining Workstation for Cutting Small Tubes” *Noble-Met Ltd.*, September 1993.

Verma, A; J. Hackworth; “Cutting Small Diameter Tubing by Electric Discharge Machining” *Noble-Met Ltd.*, September 1992.

Verma, A; J. Hackworth; “Interfacing of the Odelft Seampilot Optical Profile Sensing System with a GMF Arcmate Robot R/G Controller” *Progress Industries, Inc.*, August 1990.

Verma, A; “Development of a work cell for the automated welding of truck tank shell assemblies” *Progress Industries, Inc.*, Arthur, Illinois, September 1987.

Verma, A; “Calculation of Design Parameters and Flow Visualization of Goertler Vortices,” *Addressed to the National Aeronautics and Space Administration*, Washington, D.C., 23 pages, 10 figures and 3 tables, 1982.

Verma, A; “On Higher Eigen States of Goertler Instability in Compressible Flow,” *Addressed to the National Aeronautics and Space Administration*, Washington, D.C., 25 pages, 16 figures and illustrations, 1982.

Verma, A; N. El-Hady; “Goertler Instability in Compressible Boundary Layers Along Curved Surfaces with Suction and Cooling.” *NASA CR-3544. Addressed to the National Aeronautics and Space Administration*, Washington, D.C., 109 pages, 35 figures and computer code for stability analysis, 1982.

Verma, A; “Low Cycle Fatigue Analysis of Glass Fiber Reinforced Plastic Materials,” *Indian Institute of Technology*, Kanpur, Technical Report, August 1978.

RESEARCH PAPERS & WORKSHOPS PRESENTED AT PROFESSIONAL MEETINGS:

Verma, A; “Increasing Awareness about Engineering Technology Programs.” Presented to the ETD members at the ASEE Conference, Tampa, FL, June 14-19, 2019.

“Productivity Enhancement Philosophies and their Impact on Productivity”, Invited talk delivered to the faculty and students of the Aerospace Engineering program at Chandigarh University, Chandigarh, India, February 27, 2018.

Verma, A., Adams, S., Lin, C., Flory, I., and Escobales, N., “*Institutionalizing Continuous Improvement Plan in an Engineering Technology Department – Closing the Loop*”, ABET Symposium, Baltimore, MD, April 20-21, 2017

Verma, A; “Robotics – How it is Changing our Life.” *Presentation at the ODU Faculty Emeritus Luncheon*”, Norfolk, Virginia, March 29, 2016.

Verma, A; “Integrating Lean Engineering Design Process.” *Presentation at the IIE Lean & Six Sigma Conference*”, Orlando, Florida, September 29- Oct 1, 2014.

Verma, A “Motor Life-Boat Design - Integrating Engineering Design Process in the Middle School Curriculum” Presentation at the College of William & Mary at the VA STEM Connect Summit 2013, Williamsburg, Virginia, October 8, 2013.

Verma, A “Lean Courses in Undergraduate and Graduate Programs at ODU” Presentation at the Lean Educator Conference 2013 at Ohio State University, Columbus, OH, October 3-5, 2013.

Verma, A; “Lean Engineering Course in an Undergraduate Engineering Technology Program” LEAN Educators Conference-2013, Ohio State University, Columbus, Ohio, October 3 – October 5, 2013.

Verma, A; D. Reider; “Impact of STEM Focused Project Based Learning Activities on Career Disposition of K-12 Students.” *Presentation at the International Consortium for Research in Science and Mathematics Education – ICRSME*”, Granada, Nicaragua, March 13-16, 2013.

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Verma, A; “Impact of MarineTech project on Career Orientation of Students.” NSF ITTEST Summit, Washington D.C., February 28, 2012.

Verma, A; “Safety and Ship Disasters in Maritime.” Presentation at the STEM EXPO at Lake Taylor High School, Norfolk, Virginia, February 8, 2012.

Verma, A; Lalit K. Das; Prasanth Bollampalli, “Lean and Six Sigma in Creative Design Processes.” International Conference on Agile Manufacturing, Agra, India, December 18-20, 2011.

Verma, A; “National Workforce Consortium for Shipbuilding and Repair – Collaborating for Global Competitiveness.” NSRP All Panel Meeting, Newport News, Virginia, October 4-6, 2011.

Verma, A; “Creating Workforce for Marine Industry – Marine Tech and Marine Career Tech Projects.” Presentation at the NSRP All Panel Meeting, Newport News, Virginia, October 4-6, 2011.

Verma, A; “Marine Kits- Promoting Inquiry Based Learning in Introduction to Engineering Class.” LEAN Educators Conference-2011, University of Alabama Huntsville, Alabama, September 29 – October 1, 2011.

Verma, A; “Impact of Project Based Learning in Introduction to Engineering /Technology Class.” ASEE Conference, Vancouver, Canada, June 26-29, 2011.

Verma, A; M. Talaiver; S. McKinney; D. Dickerson; S. Dwivedi; D. Chen “Attracting K-12 Students towards Engineering Disciplines with Project Based Learning Modules.” ASEE Conference, Vancouver, Canada, June 26-29, 2011.

Verma, A; M. Talaiver; S. McKinney; D. Dickerson; S. Dwivedi; D. Chen “MarineTech Project – Engaging K-12 Students in Shipbuilding, Repair and Maritime Careers –SBRC D Project.” Proceedings of the 22nd Annual International SITE 2011 Conference, Nashville, TN March 7-11, 2011.

Verma, A; M. Talaiver; S. McKinney; D. Dickerson; D. Chen “Engaging STEM Stakeholders with Project Based Learning Related to Marine Industry- Dissemination Methodology Used in MarineTech Project” *ITEST-2011PI Summit*, Washington, DC, March 2 - 4, 2011.

Verma, A; L. Das; A. Erande, “Creative Lean Design Process.” Proceedings of the ICORD-2011 Conference, Indian Institute of Science, Bangalore, India, Jan 9-12, 2011.

Bowen, R; **A. Verma;** “MarineTech Project” *SITE-2010 Conference*, San Diego, CA, March 29 – April 2, 2010.

Verma, A; M. Talaiver; S. McKinney; D. Dickerson; D. Chen “MarineTech Project” *ITEST-10 Summit*, Washington, DC, February 25 - 26, 2010.

Verma, A; M. Talaiver; S. McKinney; D. Dickerson; D. Chen “SCHEV MarineTech Project – Innovative Uses of Sea Perch Robot for STEM Education” *SNAME-09 Conference, Innovation Session*, Providence, RI, October 20 - 24, 2009.

Verma, A; “Using LEAN Principles to Design a Continuous Improvement Model for Assessment of Academic Programs.” *LAI/LEAN Educators Conference-09*, University of Minneapolis, Minneapolis, MN, May 29 - 30, 2009.

Bowen, R; **A. Verma;** “Teachers Taking a Dive into MarineTech” *SITE-09 Conference*, Charleston, SC, March 2 - 6, 2009.

Verma, A; M. Talaiver; S. McKinney; D. Dickerson; D. Chen “MarineTech Project” *ITEST-09 Summit*, Washington, DC, February 26 - 27, 2009.

Verma, A; “Project Based Activities to Attract Students to Marine Engineering and Technology Careers.” *Proceedings of the IMECE-08*, Boston, MA, Oct 31- Nov. 6, 2008.

Hans Raj, K; R.S. Sharma; **A. Verma;** “Optimization of Hot Extrusion Process for Agile Manufacturing Using Neuro-Fuzzy Hybrid Evolutionary Computational Technique.” *Proceedings of the International Conference on Agile Manufacturing*, Western Michigan University, July 16-18, 2008.

A. Erande; **A. Verma;** “Comprehensive Agility Measurement tool.” *Proceedings of the International Conference on Agile Manufacturing*, Western Michigan University, July 16-18, 2008.

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Verma, A; “University Industry Partnership to Improve Future Workforce in Marine Industry.” *SOCP Maritime Education Conference, Linthicum Heights, MD, April 1-2, 2008.*

Verma, A; “Lean Manufacturing & Six Sigma – Implications for Design and Manufacturing.” *Presented at the Student Alumni Interaction Meeting at the Indian Institute of Technology, Kanpur, India, January 4, 2008.*

Verma, A; “Lean Institute at ODU and Lean Manufacturing Research.” *Presented to the Faculty of the Department of Industrial engineering and Management at the Indian Institute of Technology, Kanpur, India, January 3, 2008.*

Verma, A; “Simulation Kits in Shipbuilding and Repair for Outreach Activities among Middle and High Schools- SBRC D Project.” *Presented at the Ship Production Symposium, Fort Lauderdale, FL, November 14-16, 2007.*

Verma, A; “Outcome Based Assessment and Continuous Improvement Model for Engineering Technology Programs.” *Presented at the ASME International Congress, Seattle, WA, November 11-15, 2007.*

Verma, A; “Shipbuilding and Repair Career Day Event and SBRC D Project.” *Presented at the Teacher Workshop, MGCCC, Gautier, MS, September 15, 2007.*

Verma, A; “Shipbuilding and Repair Career Day Event and SBRC D Project.” *Presented at the Counselor Workshop, MGCCC, Gautier, MS, September 14, 2007.*

Verma, A; “Improving Ship Building & Repair Career Awareness among Middle and High School Students via Simulations (SBRC D Project).” *Presented at the LAI Ed Net Summer Workshop, Boeing Headquarters, Chicago, IL, July 29- Aug 1, 2007.*

Verma, A; “Enhancing Student Learning in Engineering Technology Programs – A Case for Physical Simulations.” *Presented at the ASEE Annual Conference, Honolulu, HI, June 24-27, 2007.*

Verma, A; “Update on Shipbuilding and Repair Workforce Career Day Events Project.” *Presented at the Joint Crosscut and Facilities & Tooling Panel Meeting, Newport, RI, June 12, 2007.*

Verma, A; C. Considine; “Improving Shipbuilding and Repair Workforce through Career Day Events.” *Presented at the LAI Plenary Conference, Cambridge, MD, April 18, 2007.*

Verma, A; “Shipbuilding and Repair Career Day Events Organized by Lean Institute at ODU.” *Presented at the Maritime & Transportation Center Summit, TCC, Portsmouth, VA, April 4, 2007.*

Verma, A; “Shipbuilding and Repair Career Day Events.” *Presented at the Lean Academic Network Meeting at the Shingo Prize Conference, Jacksonville, FL, March 27, 2007.*

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Verma, A; “Stochastic Models for Enhancing Agility of Supply Chains.” *Presented at the IJME-INTERTECH 2006 Conference, Kean University, NJ. October 19-21, 2006.*

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Verma, A; J. Devulapalli; “Development of a Board Game Simulation Activity for Value Stream Mapping and Analysis Training.” *Presented at the Annual Meeting of the LAI Ed Net Meeting, Worcester Polytechnic University, MA, October 16-18, 2006.*

Verma, A; “Streamlining Production Scheduling through Physical Simulations.” *Presented at the Ship Production Symposium, SNAME Maritime Technology Conference, Fort Lauderdale, FL, October 10-13, 2006.*

Chowdary, M.P; **A. Verma;** “Agility for 21st Century Enterprises.” *Presented at the International Conference on Agile Manufacturing, July 18-21, 2006.*

Hans Raj, K; R. S. Sharma; R. Setia; V. Upadhayay; **A. Verma;** “Neuro-Fuzzy Modeling of End Milling Process.” *Presented at the International Conference on Agile Manufacturing, July 18-21, 2006.*

Hans Raj, K; R. S. Sharma; R. Setia; V. Upadhayay; **A. Verma;** “Modeling of Micro End Milling Operations with Artificial Neural Networks.” *Presented at the International Conference on Agile Manufacturing, July 18-21, 2006.*

Verma, A; “Enhancing Manufacturing Instruction in Lean Manufacturing through Physical Simulations.” *Presented at the International Conference on Agile Manufacturing, July 18-21, 2006.*

Verma, A; “Enhancing Manufacturing Education in Engineering Technology Curriculum through Simulation Based Lean Training Programs.” *Presented at the LAI Educational Network Annual Meeting, November 10-13, Los Angeles, CA 2005.*

Verma, A; H. HIRAKANNAWAR; J. devulapalli; “Design of Simulation Tools for Training Programs in Lean Manufacturing.” *Presented at the ASME International Congress, November 6-10, 2005.*

Verma, A; “Lean Supply Chain Integration and Assessment – A Simulation Based Training Program.” *Presented at the ASEM Conference, Virginia Beach, VA, October 26-29, 2005*

Verma, A; “Lean Implementation in Ship Repair and Maintenance – A Simulation Activity.” *Presented at the Fleet Maintenance Symposium, San Diego, CA, September 2005.*

Verma, A; “Enhancing Fabrication Work Order Process through Application of Lean Principles.” *Presented to NASA Fabrication Branch, NASA Summer Faculty Fellowship Program, NASA Langley Research Center, August 2005.*

Verma, A; “Enhancing Agility of Design Processes for Effective Implementation of Lean Enterprise in Shipbuilding Industry – A Simulation Activity.” *Presented at the International Conference on Agile Manufacturing, Helsinki, July 2005.*

Verma, A; “Improving Agility of Supply Chains using Base Stock Model and Physical Simulations – a Comparative Analysis.” *Presented at the International Conference on Agile Manufacturing, Helsinki, July 2005.*

Verma, A; “Creating an Infrastructure for Training: The Use of Simulation Tools for Lean Enterprise Transformation” *Lean Aerospace Initiative Plenary Conference, Dana point, CA, March 22-24, 2005*

Verma, A; “Parametric Study of Kerf Quality in Water Jet Cutting (WJC) Process.” *Presented at the ASME International Congress, November 15, 2004.*

Verma, A; “Developing New Simulation Tools in design Processes for Effective Implementation of Lean Enterprise in Shipbuilding Industry.” *Lean Aerospace Initiative Educational Network Annual Meeting, University of Missouri, Rolla, November 10-12, 2004*

Verma, A; “Lean Enterprise Simulation Development – Progress Report.” *Crosscut Initiative Panel Meeting of ASRP, Biloxi, MS, November 10, 2004*

Verma, A; “Lean Enterprise Simulation Development.” *Ship Production Symposium at SNAME Maritime Technology Conference and Exposition, Washington DC, September 30- October 1, 2004.*

Verma, A; “An Integrated Lean Implementation Model for Fleet Maintenance and Repair.” *Fleet Maintenance Symposium, Virginia Beach, November 18-19, 2003.*

Verma, A; S. L. Holcomb; P. Blessener; D. Tilman; W.F. Johnston; “Parametric Study of Surface Finish in End Milling using Robust design Techniques.” *Presented at the ASME International Congress, November 2003.*

Verma, A; J. Hughes; “Development of a Training Program in Lean Manufacturing” *Paper presented at the ASEE Annual Conference, June 2003.*

Lin, C; G. Crossman; **A. Verma;** “An Air-filter Sensor for Home-based Air Conditioners” *Paper presented at the ASEE Annual Conference, June 2003.*

Verma, A; “Lean Manufacturing in Low Volume and High Variety Environment” *Presentation at Cracker Barrel Session at the Mid-Atlantic Regional Lean Conference, Portsmouth,*

November 2002.

Verma, A; H. P. Bao; K. Nagaratham; “Comparison of Cost Factors in Laser Processing of Materials and Traditional Metal Cutting Processes” *Presented at the ASME International Congress*, November 2002.

Verma, A; “Teaching Design and Automation Principles through a National Robotics Competition” *Presented at the ASME International Congress*, November 2002.

Verma, A; R. Gibson; G. Haltiwanger; “Productivity Improvement in Sheet Metal Industry using Discrete Event Simulation Software” *Presented at the PROMODEL User’s Conference*, July 2002.

Verma, A; “Using discrete event simulation software in a MET program” *Paper presented at the ASME International Congress*, November 2001.

Verma, A; “Meeting Research and publication Requirements in an UG ET Program through Senior design Projects” *Paper presented at the ASEE Annual Conference*, June 2001.

Verma, A; “Innovative Student Research Projects” *Paper presented at the ASEE annual conference*, June 2001.

Verma, A; “Effect of Various Parameters on the Efficacy of Cutting Process in Abrasive Jet Machining” *Paper presented at the ASME International Congress*, November, Orlando, 2000.

Verma, A; “Automated Batch Assembly of Miniature Pressure Sensors used in Aerospace Industry” *Presented at the, International Mechanical Engineering Congress*, Anaheim, California, November 1998.

Verma, A; “Material removal Process in Abrasive Jet Machining” *Presented at the, International Mechanical Engineering Congress*, November 1996.

Stanley, W. D; **A. Verma;** “Long-Term Performance of Old Dominion University Engineering Technology Graduates.” *Presented at the ASEE annual conference*, June 1996.

Verma, A; “Applied Research in Abrasive Jet Machining.” *Presented at the International Mechanical Engineering Congress*, ASME, November 1995.

Verma, A; “Articulation Issues in a Statewide Televised Engineering Technology Program.” *Presented at the International Mechanical Engineering Congress*, ASME, November 1995.

Verma, A; G. Crossman; “A Mobile Instructional Laboratory to Supplement the Televised Program in Engineering Technology.” *Presented at the ASEE annual conference*, June 1995.

Verma, A; C. Lin; A. Blischak; “Interfacing a Personal Computer and an Industrial Robot in a Manufacturing Cell.” *Presented at the International Mechanical Engineering Congress*, ASME, November 1994.

- Verma, A;** G. Crossman; “Bringing Industry and Academia Together with Applied Research Projects.” *Presented at the ASEE annual conference*, June 1994.
- Verma, A;** “Applied Research in Electric Discharge Wire Cutting Process” *Presented at the ASME Winter Annual Meeting at New Orleans, Louisiana*, November 29, 1993.
- Verma, A;** R. Unal; “Application of Taguchi Methods for Parametric Study of Surface Finish in End Milling” *Presented at the 9th International Conference on CAD/CAM, Robotics and Factories of the Future at Newark, NJ*, August 18-20,1993.
- Verma, A;** L. Richards; C. Callan; “Distance Learning”: A workshop. *Presented at the ASEE annual meeting at University of Illinois at Urbana-Champaign*, June 20,1993.
- Verma, A;** “Curriculum Design for Televised Instruction in Engineering Technology” *Presented at the ASEE annual meeting at University of Illinois at Urbana-Champaign*, June 21,1993.
- Verma, A;** L. Richards; “Televised Instruction: A Technological Boon or Bane”. Co-author Larry Richards, *Presented at the ASEE annual meeting at University of Illinois at Urbana-Champaign*, June 22,1993.
- Verma, A;** W. Stanley; G. Crossman; “Televised Instruction in Engineering Technology: The 2+2 Program at Old Dominion University” *Presented at the ASEE annual meeting at University of Illinois at Urbana-Champaign*, June 23,1993.
- Verma, A;** S. G. Cupschalk; “Cutting Small Diameter Tubing with Electric Discharge” *Presented at the ASME Winter Annual Meeting in Anaheim, CA*, November 11, 1992.
- Verma, A;** R. F. Michel; “Power and Energy Emphasis in Mechanical Engineering Technology Program” *Presented at the ASME Winter Annual Meeting in Anaheim, CA*, November 11, 1992.
- Verma, A;** B. Zao; “Implementing Advanced Manufacturing Technology in Organizations: A Socio-Technical Systems Analysis.” *Presented at the International Engineering Management Conference*, Eatontown, NJ, October 26, 1992.
- Verma, A;** “Design of a pneumatic end effector for a robot for lapping operation of small parts.” *Presented at the ASEE annual conference in Toledo, OH*, June 24, 1992.
- Verma, A;** W. Stanley; “Televised Engineering Technology Instruction- The ODU two plus two program”. *Presented at the regional conference of the ASEE*, Norfolk, VA, April 13, 1992.
- Verma, A;** “Human Factors considerations in the design of a Teach-Pendant.” *Presented at the 5th International Conference on CAD/CAM, Robotics and Factories of the Future*, Norfolk, VA, December 4-6, 1990.
- Verma, A;** “Factory Automation”, a workshop *Presented at the 4th International Conference on CAD/CAM, Robotics and Factories of the Future*, New Delhi, India, December 4-6, 1989.

Verma, A; “Implementation of Computer Integrated Manufacturing in a Four-Year Program” Presented at the 3rd International Robotic Systems Education and Training Conference, Plymouth, MI, July 4-7, 1986.

Verma, A; “Factory Automation and the predicament of Educational Institutions: - A case study” Robots-9 conference, June 2-6, 1985.

Verma, A; Presented “Robotics Fundamentals” workshop to the participants of the “International Conference on Robotics and Factories of the Future” held in Charlotte, NC, December 4, 1984.

Verma, A; “Strategy Adopted by Old Dominion University for the Development of Curriculum and Laboratory in Automated Manufacturing Engineering” Presented at the “International Conference on Robotics and Factories of the Future” Charlotte, NC, December 4-7, 1984.

Verma, A; “Instability of Compressible Boundary Layers Along Curved Wall with Suction Cooling.” AIAA paper #82-1010, Presented at AIAA/ASME 3rd Joint Thermophysics, Fluids, Plasma and Heat Transfer Conference, in St. Louis, MO, June 7-11, 1982.

Verma, A; “Goertler Instability in Compressible Boundary Layer with Suction or Cooling,” Presented at Virginia Academy of Science Conference held at Old Dominion University during May 13-15, 1981.

GRANTS AWARDED:

Verma, A; W. Lawrence; Virginia Department of Education – Mathematics and Science Partnership – “VA STEM CoNNECT”, January 2013, \$50,882.

Verma, A; W. Lawrence; Virginia Department of Education – Mathematics and Science Partnership – “VA STEM CoNNECT”, February 2012, \$67,718.

Verma, A; S. McKinney; H. Bao; D. Dickerson; S. Dwivedi; National Science Foundation – DUE-ATE – “Marine Career tech (MCTech): STEM Careers in Shipbuilding and Marine Industry”, September 2009, \$818,536.

Verma, A; S. McKinney; D. Dickerson; N. Brown; National Science Foundation – DRL-ITEST – “MarineTech-STEM Preparation through Marine Engineering Science and Technology Experiences,” November 2008, \$1,273,307.

Verma, A; S. McKinney; D. Dickerson; State Council for Higher Education – No Child Left Behind- Teacher Quality Improvement – “MarineTech-STEM Preparation through Marine Engineering Science and Technology Projects,” May 2008, \$120,000.

Verma, A; C. Considine; C. Lin; National Shipbuilding Research Program – Advanced Shipbuilding Enterprise, “Shipbuilding and Repair Career Day Events,” January 2007, \$426,000.00.

Verma, A; STIHL Inc., “Customization and Delivery of Lean Introduction and 5-S Training,” November 2003, \$23,500.

Verma, A; National Shipbuilding Research Program – Advanced Shipbuilding Enterprise, “*Developing Lean Enterprise Simulation Exercises for Shipbuilding and Repair,*” September 2003, \$376,872.00.

Verma, A; Northrop Grumman Newport News, “*Review a Prototype and Produce Compartment Fabrication Simulation for Lean Training at NGNN,*” November 2003, \$ 4,130.

Verma, A; NASA/ASEE Summer Fellowship, Summer 2003, \$ 13,000.

Verma, A; P. Kauffman; Advanced Design Corporation, “*Certification and Quality Assurance for CAD courses offered by ADC Corporation,*” November 2002 - April 2003, \$9,200.

Verma, A; Northrop Grumman Newport News, “*Lean Enterprise Program Development,*” Sept. 2002 – September 2003, \$43,740.

Verma, A; Center for Innovative Technology, A.K. Verma, “*Advanced Battery Testing Machine,*” Rebatt Inc., Newport News, Virginia, November 20, 1998 - February 28, 1999, \$ 37,978.

Verma, A; Center for Innovative Technology, “*Automated Battery Testing Machine,*” Rebatt Inc., Newport News, Virginia, April 15- November 30, 1998, \$38,989.

Verma, A; Center for Innovative Technology, “*Automated Component Placement for Sensor Assembly,*” Pressure Systems Inc., Phase-III, Aug- December 1997.

Verma, A; G. Selby; L. Vahalla; State council of higher Education for Virginia, Pre-Collegiate Programs, “*Pre-College Program Stressing Educational Opportunities,*” Summer 1997, \$20,000.

Bao, H; G. Hou; A. Verma; Center for Innovative Technology, “*Industrial Manufacturing Assessment Center (IMPAC),*” June 1996-June 1997, \$50,000.

Verma, A; Center for Innovative Technology, “*Automated Component Placement for Sensor Assembly,*” Pressure Systems Inc., March-December 1996, \$16,902.

Verma, A; G. Crossman; W. Stanley; National Science Foundation, “*Mobile Instructional Laboratory to serve multiple sites in the 2+2 Engineering Technology Program,*” August 1994, \$112,000 (matching \$56,000).

Verma, A; C. Lin; Society of Manufacturing Engineers Education Foundation, “*Capital Equipment Grant,*” August 1994, \$20,227.

Verma, A; Brown & Sharpe Metrology Grant Program, “*Development of Coordinate Measuring Capability at Old Dominion University,*” August 1993, \$20,170.

Verma, A; J. Hackworth; Center for Innovative Technology, “*Cutting small diameter tubing with Electro Discharge Machining,*” Phase-III. NOBLE-MET corporation, January-April 1993, \$17,450.

Verma, A; S. Cupschalk; Center for Innovative Technology, *"Cutting small diameter tubing with Electro Discharge Machining,"* NOBLE-MET corporation, April-December 1991, \$22,995.

Verma, A; J. Hackworht; Center for Innovative Technology, *"Interfacing of Oldelft Seampilot Optical Profile Sensing System with a GMF Robot/RG Controller,"* Progress Industries, Inc., January 1990, \$25,000.

Verma, A; D. Landman; Center for Innovative Technology, *"Modification of Fabric Laminating Machine,"* Phase II, May 1989 - August 1989, \$4,000.

Verma, A; D. Landman; Center for Innovative Technology, *"Design and Fabrication of Fabric Laminating Apparatus,"* Phase I, May 1988- May 1989, \$22,000.

Verma, A; Society of Manufacturing Engineering Education Foundation, *"Co-author of a grant for development of automation laboratory,"* February 1984, partially funded at \$900.

Verma, A; NASA Contract VAG-1340, *"Calculation of Design Parameters and Visualization of Goertler Vortices,"* Completed October 31, 1983, \$21,000.

Verma, A; NASA Contract NAG-1-228, *"On Higher Eigen States of Goertler Vortices,"* Completed August 31, 1982, \$6,467.

GRANTS APPLIED FOR:

PI: **Verma, A.**, Co-PIs: Ayala, O., Draper, D., Jovanovic, V., Katsioloudis, P. "IUSE/PFE:RED - Revolutionizing the Engineering Technology Department at Old Dominion University – MonarchTech". NSF. Total period covered: 06/01/16-05/30/21. Total amount requested: \$1,974,204. PI: Dean, A., Co-PIs: Adames, S. G., Arcaute, K., Jovanovic, V., Perez, T. "A Pathway to Completion for Veterans Pursuing Engineering and Engineering Technology Degrees". NSF. Total period covered: 11/16/16 – 11/15/21. Total amount requested: \$1,000,000. Personal percentage: 20%, \$200,000.

Verma, A; S. McKinney; V. Jovanovic; O. Popescu and O. Ayala. National Science Foundation – ITEST – *"Using Literature to Teach technology Based STEM Skills to K-2 Learners- Lit-STEM K-2"*, August 2016, \$ 1,199,407.

Verma, A; D. Draper; P. Katsioloudis; V. Jovanovic; J. Michaeli and O. Ayala. National Science Foundation – IUSE/PFE: RED – *"Revolutionizing the Engineering technology Department at Old Dominion University – MonarchTech"*, November 2015, \$1,974,204.

Verma, A; D. Draper; P. Katsioloudis; V. Jovanovic; and O. Ayala. National Science Foundation – IUSE/PFE: RED – *"Revolutionizing the Engineering technology Department at Old Dominion University – MonarchTech"*, November 2014, \$1,928,146.

Verma, A; S. McKinney; V. Jovanovic; and J. Michaeli. National Science Foundation – DR K-12 – *"STEM-SEA: Mathematics and Marine exploration Using Sea Perch Robot"*, November 2013, \$1,043,266.

Sukenik, Charles I.; G. Hou; **A. K. Verma**; B. Onur; R. Ash; R. McKenzi and D. Nguyen and J. Michaeli. Howard Hughes Medical Institute – *“Project AIM –Increasing STEM Major Persistence and Enhancing Student Learning”*, October 2013, \$2,477,000.

Verma, A; W. Lawrence; Virginia Department of Education – Mathematics and Science Partnership – *“VA STEM CoNECT”*, January 2012, \$50,882.

Verma, A; National Science Foundation – DRL-ITEST – *“MarineTech-Scale Up Project”*, October 2012, \$1,999,840.

Verma, A; W. Lawrence; Virginia Department of Education – Mathematics and Science Partnership – *“VA STEM CoNECT”*, December 2011, \$67,718.

Verma, A; National Science Foundation – DRL-ITEST – *“MarineTech-Scale Up Project”*, May 2011, \$1,848,840.

Verma, A; National Science Foundation – DUE-ATE – *“Marine Career tech (MCTech): STEM Careers in Shipbuilding and Marine Industry”*, October 2008, \$818,536.

Verma, A; National Science Foundation – DRL-ITEST – *“MarineTech-STEM Preparation through Marine Engineering Science and Technology Experiences”*, January 2007, \$1,378,090.

Verma, A; State Council for Higher Education – No Child Left Behind- Teacher Quality Improvement – *“MarineTech-STEM Preparation through Marine Engineering Science and Technology Projects”*, January 2007, \$160,000.

Verma, A; Indo-US Science and Technology Forum, *“Indo-US Bilateral Workshop on Technical Education”*, October 2007, \$54,066.

Verma, A; Indo-US Science and Technology Forum, *“Indo-US Bilateral Workshop on Lean Implementation within Shipbuilding and Repair Industry”*, February 2007, \$76,157.

Verma, A; National Science Foundation – ESI-ITEST – *“Information Technology Career Pipeline”*, January 2007, \$1,019,930.

Verma, A; National Shipbuilding Research Program – Advanced Shipbuilding Enterprise, *“Shipbuilding and Repair Career Day Events”* October 2006, \$435,863.00.

Verma, A; National Science Foundation – Instructional Material Development – *“Design and Development of Physical Simulation Based Instructional Lesson plans for Integrating Math, Science and Technology Concepts and Career Awareness within K-12”*, November 2005, \$692,684.

Verma, A; Defense Acquisition University, *“Implementing Supply Chain Integration using Lean Principles”*, November 2004, \$ 45,000.00.

Verma, A; National Shipbuilding Research Program – Crosscut Initiative Panel Project,

“Simulation Based Intervention Tools for Workforce Recruitment and Development in Shipbuilding and Repair”, November, 2004\$ 152,000.00.

Verma, A; National Shipbuilding Research Program – Surface Preparation and Coating Panel Project, *“Enhancing Surface Preparation and Coating Process through Value Stream Mapping and other Tools”* November 2004, \$ 80,000.00.

Verma, A; Northrop Grumman Newport News, *“Generation of a Computer Simulation Model to Complement the Training Program in the Performance Metrics”* April 2004, \$7,454.00.

Verma, A; STIHL Inc., *“Customization and Delivery of Lean Introduction and 5-S Training”*, November 2003\$ 23,500.

Verma, A; National Shipbuilding Research Program – Advanced Shipbuilding Enterprise, *“Developing Lean Enterprise Simulation Exercises for Shipbuilding and Repair.”* May 2003, \$376,872.00.

Verma, A; National Shipbuilding Research Program – Advanced Shipbuilding Enterprise, *“Enhancing Safety in Shipbuilding and Repair through the Application of Lean and Six Sigma Methodologies.”* May 2003, \$450,000.00.

Verma, A; NASA Langley Research Center, *“Parametric Optimization of Laser Cutting Processes using Robust Design Techniques.”* October 2003, \$37,678.00.

Verma, A; Northrop Grumman Newport News, *“Review a Prototype and Produce Compartment Fabrication Simulation for Lean Training at NGNN”*, November 2003\$4,130.00.

Verma, A; Northrop Grumman Newport News, *“Development and Delivery of an Executive Training Program in Lean Enterprise”*, September 2002 – December 2003, \$ 69,000.

Verma, A; Virginia Advanced Shipbuilding and Carrier Integration Center, Northrop Grumman Newport News, *“Lean Manufacturing in Low Volume and High Variety Environment- Researching the needs of Shipbuilding Industry”*, November 2002, \$84,600.

Verma, A; P. Kauffman; Advanced Design Corporation, *“Certification and Quality Assurance for CAD courses offered by ADC Corporation”*, November 2002 - April 2003, \$9,200.

Verma, A; Northrop Grumman Newport News, *“Lean Enterprise Program Development”*, Sept. 2002 – April 2003, \$23,740.00

Verma, A; J. Hackworht; C. Lin, P. Kauffman; BBG Incorporated, *“Design, Solid Modeling, Shock and Vibration Testing of Electronic Systems Enclosures”*, March 2002, \$9,036.

Verma, A; Center for Innovative Technology, *“Advanced Battery Testing Machine”*, Rebatt Inc., Newport News, Virginia, November 20, 1998 - February 28, 1999, \$37,978.

Verma, A; Center for Innovative Technology, *“Automated Battery Testing Machine”*, Rebatt Inc., Newport News, Virginia, April 15- November 30, 1998, \$38,989.

Verma, A; Center for Innovative Technology, "*Automated Component Placement for Sensor Assembly*", Pressure Systems Inc., Phase-III, Aug- December 1997.

Verma, A; Center for Innovative Technology, "*Kickboard Design & Prototype*", Eileen Stein, May- September 1997, \$34,443.

Verma, A; L. Vahala; G. Selby; C. Cooke; Virginia Department of Education, State Council of Higher Education, "*Pre-college Program Stressing Educational Opportunities (PREP-STEP)*", February 1997, \$34,443.

Bao, H; G. Hou, **A. Verma;** Center for Innovative Technology, "*Industrial Manufacturing Assessment Center (IMPAC)*", June 1996-June 1997, \$50,000.

Verma, A; Center for Innovative Technology, "*Automated Component Placement for Sensor Assembly*", Pressure Systems Inc., March-December 1996, \$16,902.

Verma, A; Dr. R. Champ (M.D.); Center for Innovative Technology, "*Disposable Needle System Prototype*", Portsmouth, VA, December 1995, \$15,669.

Verma, A; M. Walker; Center for Innovative Technology, "*Design and Material Evaluation for a Supine Back Support*", Panacea Technologies Corp., Virginia Beach, VA November 1995, \$4,078.

Verma, A; C. Lin; National Aeronautics and Space Administration STTR Program, "*Intelligent Automatic Calibration System for a Robot using Machine Vision*", March,1994, \$99,622.

Verma, A; Manufacturing Engineering Education Foundation of Society of Manufacturing Engineers, "*Development of CAD/CAM capability at ODU*", January 1994, \$180,500.

Verma, A; Center for Innovative Technology, "*Automated Assembly of Radiator Coils*", Super Radiator Coils, Richmond, VA, December 1993, \$ 41,100.

Verma, A; G. Crossman, W. Stanley; National Science Foundation, "*Mobile Instructional Laboratory to Serve Multiple Sites in the 2+2 Engineering Technology Program*", November 1993, \$ 138,115

Verma, A; J. Hackworth; Alan Blischak; Georator Inc., "*Development of Instantaneous Transfer Unit*", September 1993, \$137,900

Verma, A; Brown & Sharpe Metrology Grant Program, "*Development of Coordinate Measuring Capability at Old Dominion University*", March 1993, \$20,170.

Verma, A; Center for Innovative Technology, "*Automated Production of Sand Carved Panels Using Abrasive Jet Process*", Woodpecker Products Inc., Moneta, VA, April - October 1993, \$30,000.

Verma, A; G. Crossman; W. Stanley; National Science Foundation, "*Mobile Instructional*

Laboratory to Serve Multiple Sites in the 2+2 Engineering Technology Program", November 1992, \$125,295.

Alasya, D; **A. Verma**; National Science Foundation, "*Summer workshop in Computer Integrated Manufacturing for undergraduate engineering faculty*", April 1992, \$73,562.

Verma, A; Center for Innovative Technology, "*Trimming metallic bellows*", BELVAC Production Machinery, Lynchburg, VA, May 1992. April 1991, \$15,000.

Alasya, D; **A. Verma**; National Science Foundation, "*Summer workshop in Computer Integrated Manufacturing for under-graduate engineering faculty*", March 1991, \$121,384.

Verma, A; Center for Innovative Technology, "*Control on production of cruise control cables*", TELEFLEX Inc., Lebanon, VA, April,1992, \$9,000.00.

Verma, A; S. Cupschalk; Center for Innovative Technology, "*Cutting small diameter tubing by Electrical Discharge Machining*", April 1991, \$22,995.

Verma, A; Center for Innovative Technology, "*Design and development of a counter/packaging apparatus for marker bands*", July 1991, \$12,500.

Verma, A; Center for Innovative Technology, "*Robotic painting of miniature historic buildings*", April 1991, \$37,700.

Verma, A; Center for Innovative Technology, "*Development of a Vascular Anastomosis Instrument*", May 1992, \$10,100.

Verma, A; Center for Innovative Technology, "*Interfacing of the Odelft Seampilot Optical Profile Sensing System with a GMF Robot/RG Controller.*" January 1990.

Verma, A; D. Landman; Center for Innovative Technology, "*Modification of Fabric Laminating Machine*", Phase II, January 1989 - May 1989, \$9,500.

Verma, A; D. Landman; Center for Innovative Technology, "*Design and Fabrication of Fabric Laminating Apparatus*", Phase I, May 1988 - May 1989. This project was extended from the previous year, \$22,000.

Verma, A; Society of Manufacturing Engineers Education Foundation, Co-author of a proposal submitted to develop laboratory facilities, February 1984. Partial funding was realized, \$53,350.

Verma, A; NASA Langley Research Center, "Calculation of Design Parameters and Visualization of Goertler Vortices," principal investigator, refunding of above project sought, 1983, \$27,000 for one year.

Verma, A; NASA Langley Research Center, "Calculation of Design Parameters and Visualization of Goertler Vortices," principal investigator, funds requested, 1982, \$24,000 for one year.

Verma, A; NASA Langley Research Center, "On Higher Eigen States of Goertler Vortices," co-investigator, funds requested \$6,467 for three months, 1981.

CONSULTING ACTIVITIES:

Chair of the Mock visiting Team for Accreditation at Virginia State University, 2008

Served as expert witness in several cases involving product liability.

Analysis of project trajectory and vehicle damage, 1994.

Development of a Vascular Anastomosis Device, December 1993.

Shaft connector design analysis for a hospital bed, August 1992.

Achieving better dimensional and strength control on production of cruise control cables, a feasibility study, TELEFLEX Inc., Lebanon, VA, March 1992.

Trimming metallic bellows, BELVAC Production Machinery, Lynchburg, VA, April 1992.

Design of basket transfer mechanism for lapping operation. EDL Laboratories, Newport News, VA, March 1991.

Design of Robotic end-effector for lapping operation for armature needles. EDL Laboratories, Newport News, VA. February 1991.

Initiated a pilot program in Robotics for gifted and talented students in the Virginia Beach School System. The pilot program was implemented during summer 1987.

Automation of welding process using a robot for producing truck tanks. Progress Industries, Arthur, Illinois., June 1986.

Analysis of torque requirement for overhead doors used in submarine housing and repair buildings. Montgomery Doors, 1986.

Automation of moisture absorption and crank shaft grinding processes. Co-author of a proposal submitted to Stihl Chain Saw Corporation, Virginia Beach, 1984.

Automation and feasibility analysis of several existing processes. Met several times with the Production Efficiency Group at Ford Truck Assembly Plant, Norfolk, 1984-85.

HONORS, AWARDS, AND PRIZES:

Humanitarian Award, Virginia Center for Inclusive Communities, March 2019

Isadore Davis Award, American Society for Engineering Education, June 2018

John R. Broderick Diversity Champion Award, Old Dominion University, December 2014.

Citation from the Lean Educator's Conference, for chairing the LEC-2012, September 2012.

Citation from the International Conference on Agile Manufacturing Systems, 2011 for chairing the ICAM-2011, December 2011.

Ben C. Sparks Medal, American Society of Mechanical Engineers, May 2006.

Provost's Award for Leadership in International Education, ODU, 2006.

Regional Alumni Award for Excellence for contribution in Lean Manufacturing by the Alumni Association of Indian Institute of Technology- Kanpur, 2004. Director of IIT-K presented the award in Gaithersburg, MD.

Excellence in Industry Partnering Award, Frank Batten College of Engineering and Technology, 2004.

Citation from Asian Indians of Hampton Roads for holding President's position for year 2000.

Citation from the International Society for Productivity Enhancement, for chairing the 5th International Conference on CAD/CAM, Robotics and Factories of the Future, December 1990.

Outstanding MET faculty award, 1986-87.

Most inspiring faculty award, 1985.

Received citation from Regional Association of Asian Indians for being highly active in community services, May 1984. These activities are listed under community services.

Recognized for effective and energetic leadership by the American Institute of Aeronautics and Astronautics, April 1981.

"Gold Award" for working more than 80 hours a week, and "Century Club Award" for outstanding salesmanship, Southwestern Company, 1979.

Best Senior project award, Fabrication of Composite Material Specimen and Fatigue testing on Instron Machine, 1978.

Ranked 4th in pre-university examination among more than a thousand students from different colleges, Dibrugarh University, 1972.

PROFESSIONAL CERTIFICATION:

Green Belt in Six Sigma, Northrop Grumman Newport News University, 2003.

Certified in Lean Manufacturing, 2001.

Professional Engineer; Licensed by the State of Virginia, 1986.

Certified as a Manufacturing Engineer in Robotics by the Certification Institute of the Society of Manufacturing Engineers, December 1984.

MEMBERSHIP IN PROFESSIONAL SOCIETIES:

Member, Society of Naval Architects and Marine Engineers.

Senior Member, Society of Manufacturing Engineers.

Senior Member, Robotics International of SME.

Member, American Society of Mechanical Engineers.

Member, Education and Training Division of Robotics International.

Member, American Society for Engineering Education.

Member, American Educational Research Association.

Member, Institute of Industrial Engineers.

Charter Member, Machine Vision Association of SME.

COMMUNITY SERVICE:

First Vice President, Norfolk Sister City Association, 2015-2016

Board Member – Norfolk Sister City Association, 2014-Present

Board Member – Asian Indians of Hampton Roads, 2010-Present

President, Asian Indians of Hampton Roads, 2007-2009

Board Member, Virginia Center for Inclusive Communities, Hampton Roads, 2006-2008

Board Member, Asian American Alliance, 2000-2001

Public Relations Chair, Asian Indians of Hampton Roads, 2001-Present

Board Member, World Affairs Council of Greater Hampton Roads, 2000-2001

Board Member, The National Conference for Community and Justice, 2000-2001

President, Asian Indians of Hampton Roads, 1999-2000

Vice-President, Asian Indians of Hampton Roads, 1998-1999

Volunteer work at Norfolk Food Bank, 1998

Secretary, Asian Indians of Hampton Roads, 1997-1998

Treasurer, Asian Indians of Hampton Roads, 1996-1997

Executive Committee Member, Asian Indians of Hampton Roads, 1995-1996

Secretary/Speaker, Delta Group of Tidewater, 1985-1986

President, Asian Indians of Tidewater, 1983-1984

Executive Vice President, Asian Indians of Tidewater, 1982-1983

Vice President, Asian Indians of Tidewater, 1981-1982

President, Indian Students Association, 1980-1981

Founding Chairman, Student Branch of American Institute of Aeronautics and Astronautics at Old Dominion University, 1980-1981.

General Secretary, Society of Aeronautical Engineers, Indian Institute of Technology, Kanpur, 1977.

PROFESSIONAL SERVICES:

Program Chair – CIEC 2021 Conference, Garden Grove, CA

Program Chair – CIEC 2020 Conference, Orlando, FL

Institutional Representative, Engineering Technology Council of ASEE, 2019-2020

Asst. Program Chair – CIEC 2019 Conference, Tampa, FL

Asst. Program Chair - CIEC 2018 Conference, New Orleans, LA.

Board Member, International Association of Journals and Conferences, IAJC, 2019

Lead person- Marketing Group of ETD of ASEE, 2019-20

Lead person- Marketing Group of ETD of ASEE, 2018-19

Member International Organizing Committee – International Conference on Research in Design, ICord-2019, Jan 9-11, 2019, Bangalore, India.

Paper Reviewer - International Conference on Research in Design, ICord-2019, Jan 9-11, 2019, Bangalore, India.

Paper Reviewer – American Society for Engineering Education Annual Conference -2019, Jun 15-19, 2019, Tampa, FL.

Keynote Speaker – XXII Annual International Conference of the Society of Operations Management, SOM-2018, December 20-22, 2018, IIM Kozhikode, India.

Chair, Mechanical Engineering Technology Leadership Committee of American Society of Mechanical Engineers, 2016-2018.

Director, Engineering Technology Council of ASEE, 2016-2018

Organizing Committee Member, Chair's Conclave at ASEE conference, Columbus, Ohio, 2017

Panel Member, Panel on Evaluation of Scholarly Work, Chair's Conclave at ASEE conference, Columbus, Ohio, 2017

Vice Chair, Mechanical Engineering Technology Leadership Council of American Society of Mechanical Engineers, 2015.

Member, ASME Committee on Education, 2015-18.

General Co-Chair, 4th IAJC/ISAM Joint International Conference, Orlando, Florida, September 25-27, 2015.

International Advisory Board, 5th International All India Manufacturing Technology Design and Research Conference, IIT Guwahati, India, December 12-14, 2016

Technical Advisory Committee, 6th International Conference on Industrial Engineering & Operations Research – IEOM-2016, Kuala Lumpur, Malaysia, March 8-10, 2016

Board Member, International Association of Journals and Conferences, IAJC, 2015.

Vice Chair, Mechanical Engineering Technology Leadership Council of American Society of Mechanical Engineers, 2014.

Board Member, ASME Board on Education, 2014.

General Co-Chair, 4th IAJC/ISAM Joint International Conference, Orlando, Florida, September 25-27, 2014.

International Advisory Board, 5th International All India Manufacturing Technology Design and Research Conference, IIT Guwahati, India, December 12-14, 2014

STEM Booth and Presentation at the Annual STEM Day Expo at Wilson High School, Portsmouth, March 2013

General Chair, Lean Educators Conference, Norfolk, Virginia, September 27-29, 2012.

Honorary Chair USA, International Conference on Agile Manufacturing, Agra, India, December 18-20, 2011.

Navy League Show of Pride Exhibition, Virginia Beach Convention Center - September 10-11, 2010

President, International Society of Agile Manufacturing, 2008 - 2014.

Member, QEP Committee on SACS Accreditation, 2010, 2011.

Technical Chair, International Conference of Modern Engineering, 2008.

Chief Editor, International Journal of Agile Manufacturing, 2008 - 2015.

Member, International Program Committee, ICoRD 2009 Conference, 2008.

Editorial Board, International Journal of Modern Engineering, 2006 – Present.

Associate Editor, International Journal of Agile Manufacturing, 2004 - 2007.

Associate Editor, International Journal of Advanced Manufacturing Systems, 2004 - present.

Member Advisory Board, Tidewater Community College, Industrial Technology Program, 1999-2008.

Chair Advisory Board, Tidewater Community College, Design and Drafting Program, 1996-2008.

Session Chair, "Innovative Instructional/Laboratory Techniques in Engineering Technology" at the ASME International Mechanical Engineering Congress, November, 1995.

High Performance Manufacturing Strand Leader for the Techquest Project under Virginia Space Grant Consortium. 1994-1995.

Chairman, Mechanical Engineering Technology Department Heads Committee of the American Society of Mechanical Engineers. 1994-95.

Vice-Chairman, Mechanical Engineering Technology Department Heads Committee (METDHC) of the American Society of Mechanical Engineers. 1993-1994.

Member, METDHC task force on ABET criteria, 1992-1993.

Session Co-chair, "Manufacturing Education: An Outside Perspective" at the ASEE annual conference at the University of Illinois at Urbana-Champaign, June 22, 1993.

Session Chair, "Robotics, CIM and Quality Control in Engineering Technology" at the ASEE annual conference in Toledo, OH, June 24, 1992.

General Chair, 5th International Conference on CAD/CAM, Robotics and Factories of the Future. International Society for Productivity Enhancement, Dec. 1990.

Regional representative for the Mechanical Engineering Technology Department Head's Committee of ASME for region IV, 1991 & 1992.

Offered seminars and laboratory exercises for "Young Scholar Program" funded by National Science Foundation, 1987, 1988.

Secretary of SME Chapter, F262, 1987.

Reviewed technical papers for "Robots 11" Conference, January 1987.

Regional coordinator of Robotics and Automated Systems Instructor's Network (RAIN), 1986-87.

Vice Chairman-Curriculum Development, Education and Training Division of Robotics International 1986-87.

Proctored EIT Examination, 1985 and 1988.

Founding member of the Education and Training Division of Robotics International. The Division monitors the development of new programs in robotics and automated systems and acts as an information source, 1983-present.

Presentation in Seminars Sponsored by Chrome - offered day-long seminars involving presentation in robotics and laboratory experiments to the area schoolteachers during August 1984, 1985, 1986, and 1987.

Presented a day-long seminar in Robotics for students of Portsmouth school system under project "Smart," October 12, 1985.

Member Advisory Council of Norfolk Vocational and Technical Education Center, 1985-2001.

Reviewed 21 papers for the "Robots 10" Conference, January 1985.

Conducted demonstration of robotics and numerical control laboratory for several student groups from area high schools.

Helped start a pilot program in robotics for the gifted and talented students in Virginia Beach school system.

Vice Chairman for the session on Robotics Applications at the "International Conference on Robotics and Factories of the Future," December 4, 1984 in Charlotte, N.C.

UNIVERSITY SERVICES

Chair, Engineering Technology Dept., Old Dominion University. 2014 - 2017

BCET Representative, Faculty Diversity Leadership Committee, Batten College of Engineering and Technology, 2014-17.

Member – MET Curriculum Committee 1990-2019

Member- ET Promotion and Tenure Committee 2017-2019

Member- COACHE Committee 2015-2019

Member SEES Faculty Advisory Committee, 2014-15.

ODU member of Technical Advisory Council - Commonwealth Center for Advanced Manufacturing. (Part of 2015).

Chair, Promotion and Tenure Committee, Batten College of Engineering and Technology, 2013-14.

Chair, Promotion and Tenure Committee, Engineering Technology Department, 2013-14.

Member, Advisory Board – Quality Enhancement Plan, Old Dominion University, 2012, 2013.
Member – Quality Enhancement Plan Committee, 2011

Chair, Faculty Search Committee, Department of Engineering Technology, 2004-2005.

Member, Faculty Search Committee, Department of Engineering Technology, 2003-2004.

Member, Chair Search Committee, Department of Engineering Technology, 1999-2000.

Member Task Force, Engineering Learning Center, College of Engineering & Technology, 1997-98.

Member Task Force, Strategic Planning, College of Engineering & Technology, 1997-98.

Member, Faculty Development Committee, Old Dominion University, 1997-98

Member, University Web Advisory Committee, 1996-97

Member, University Computer Maintenance Committee, 1996-97

Member, University Administrative Systems Committee, 1996-97

Member, Campus Digital Network Advisory Committee, 1993-94.

Member, University Strategic Planning Committee, 1992-94.

Member, Pre-Planning Committee for TELETECHNET Center, 1992-93.

Member, Steering Committee, Assessment of Academic Achievement 1988 - 1991.

Member, task force, Assessment of Academic Achievement 1987 - 1991.

Member, Commencement Committee, 1986-87.

Secretary, Faculty Senate Committee A, 1986-87.

Member, Faculty Senate Committee A, 1986-1990.

Member, Undergraduate Committee of College of Engineering and Technology, 1985-1989.

Member, University Committee on Artificial Intelligence 1985-86.

Automated Manufacturing Laboratory Robotics laboratory demonstrations during Parents Weekend October 1985 - present.

Advisor for the student group in Robotics 1984-86.

Supervised the laboratory demonstrations during Engineering Open House 1985, 1987, 1988, 1989

and 1990.

Member, Faculty Senate Committee E 1984-85.

Member, University Commencement Committee 1983-84.

Secretary, School of Engineering 1983-84.

Served on the Textbook Committee 1982-83.

Served on Webb Center Advisory Council 1982-83.

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