

## RESUME

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**CITIZENSHIP:** USA

**EDUCATION:** Ph.D. Iowa State University, 1979  
M.S. Kansas State University, 1967  
M.S. Aligarh University, 1961  
B.S. Punjab University, 1959

### SCHOLASTIC ATTAINMENTS:

1. O.G.P.A. for M.S. (Mechanical Engineering) at Kansas State University was 4.00/4.00. Election to **Phi Kappa Phi** both at Kansas State University and Iowa State University.
2. Winner of "**Best Research Paper Award**" for 1980 from ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers).
3. Recipient of **Rothberg Professional Excellence Award** at Bradley University for the year 1994.
4. Appointed **CILCO Endowed Distinguished Professor**, 2001.

### EXPERIENCE:

1. January 1978-to-date. Currently CILCO Endowed Professor and Chairman (promoted from Associate Professor in August, 1982), Department of Mechanical Engineering, Bradley University, Peoria, Illinois. Responsible for the development of courses and research projects in the areas of: Energy Management; Demand Side Management; Thermodynamics, Instrumentation and Control; Materials Science, and HVAC.
2. November 1975 - January 1978. Instructor/Research Assistant, Department of Mechanical Engineering, Iowa State University, Ames, Iowa. Responsible for carrying out research in the areas of Energy Efficiency, Human Thermal Comfort, and Control Dynamics for the projects sponsored by the Iowa Energy Policy Council and ASHRAE; and for teaching courses in the area of Thermodynamics, Instrumentation and Control Systems while pursuing studies for a Ph.D. degree.

3. July 1962 - November 1975. Associate Professor (promoted from Assistant Professor in November, 1967), Department of Mechanical Engineering, Pant Nagar University, India. Responsible for the development of courses and research in the area of Instrumentation, Automatic Controls, Materials Science, HVAC (Heating, Ventilating and Air-Conditioning) Systems, Thermodynamics, and Thermal Energy Systems, Industrial Management, and Statistical Methods in Quality Control.
4. July 1961 - July 1962. Lecturer, D.A.V. college, Amristar, India.
5. May 1961 - July 1961. Senior Research Assistant, Punjab Irrigation and Power Research Institute, Amristar, India.

**ADDITIONAL EXPERIENCE:**

1. January 1978-to-date
  - A. Graduate Advisor and Major Professor for sixty graduate students. Supervised their theses/projects in the area of HVAC & R, instrumentation and control systems; materials science; energy systems; and demand side management.
  - B. Guided forty Senior Design Projects.
  - C. Implemented an undergraduate digital measurement and control systems laboratory with two funded projects from the National Science Foundation.
  - D. Initiated, developed, and taught the following new courses at Bradley University.
    - i) ME 441 - Mechanical Control Systems (UG)
    - ii) ME 537 - Building Energy Management (G/UG Elective)
    - iii) ME 544 - Mechanical Systems Anal. (UG/G)
    - iv) ME 547 - Fluid Power Control Systems (G)
    - v) ME 591 - Energy Management Systems (G/UG)
    - vi) ME 691 - Advanced HVAC Systems (G)
    - vii) ME 536 - Industrial Pollution Prevention (G)
  - E. Faculty Advisor ASME & ASHRAE for 3 year terms.
  - F. Served on 30 different University, College, and Departmental Committees.
  - G. Member, University Senate since 2000.
2. July 1967 - July 1971. Officer-In-Charge. Instrumentation Center at Pant Nagar University, India. Responsible for testing, installation, calibration, repair and maintenance of instruments and equipment received by Pant Nagar University from U.S.A. under U.S.A.I.D. program, and for the development of instrumentation required for various research projects in accordance with local parameters and conditions.
3. March 1971 - November 1975. Warden, University Hostel at Pant Nagar, India. Responsible for the supervision

of 50 employees employed for various services to 500 students in the hostel, for providing counsel and guidance to 500 students in the various aspects of life and human relations.

4. July 1972 - July 1974. Staff Counselor, Engineering Society at Pant Nagar, India. Responsible for guidance for the professional development of 800 student members of the Society.
5. July 1967 - July 1971. Officer-In-Charge. Engineering Stores at Pant Nagar, India. Responsible for the procurement, maintenance, and issue functions of engineering stores.
6. July 1967 - November 1975. Acting Head; Department of Mechanical Engineering at Pant Nagar University for a total period of two years. Eighteen faculty members and 300 students.

**INDUSTRIAL EXPERIENCE** at the following companies in U.S.A.

(1965-1967):

(1) Honeywell, (2) Leeds and Northrup, (3) Mettler, (4) Nuclear-Chicago, (5) Beckman, (6) New-Brunswick Scientific Co., (7) Ivan Sovall, Inc., (8) Torsion Balances, (9) International Equipment Company.

**CONSULTATION EXPERIENCE:**

1. Tarai Development Corporation, India, 1973. Design of Energy Efficient Cold Storages.
2. Ross TEMP. Mason City, Iowa, 1978. Design and Development of Energy Efficient Ice Machines.
3. Illinois Institute of Natural Resources. Springfield, Illinois, 1980. Energy Audits.
4. Local Churches in Peoria, Illinois, 1982. Building Energy Audits.
5. Central Illinois Light Company, Illinois. 1982. Energy Systems Engineering.
6. Barber-Colman Company, Rockford, Illinois, 1983. Search for a suitable ceramic coating material for improving the design of their Carbon Sensors.
7. Local Nursing Homes in Peoria, Illinois, 1983. Energy Audits
8. Central Illinois Light Company, Peoria, IL 1984-87. Ground Coupled Heat Pumps (Geothermal Technologies).
9. Peoria County, Peoria, IL, 1988. Energy Analyses.
10. Central Illinois Light Company, Peoria, IL, 1991-98. Demand Side Management, and Thermal Storage Systems.

11. Illinois Society of Professional Engineers (ISPE), Springfield, IL. Review Courses for the Fundamentals and PE Exams. 1992-2003.
12. College of DuPage and Joliet College, Illinois. Energy Seminars. 2002-2004
13. Practicing Law Firms. Expert Witness in Legal Cases involving Mechanical Engineering, 2000 - to date.
14. U. S. Department of Energy (DOE). Save Energy Now (SEN). **Process Heating Assessments** using PHAST Tool. 2006 - to date.

**SPONSORED RESEARCH PROJECTS:**

1. Principal Investigator and Project Director of a research project entitled "Effects of Control Dynamics on **Energy Consumption in Building Environmental Control Systems**". National Science Foundation. \$46,573. May 1981 - December 1983
2. St. John Lutheran Church, Peoria, Illinois. \$3,000 for research in the area of **energy audits**. 1981
3. Principal Investigator and Project Director of a project entitled "Implementation of Undergraduate **Digital Measurements and Control Systems Laboratory**". National Science Foundation. \$38,930. September 1981 - March 1984
4. Grant-In-Aid from ASHRAE. To support one graduate student for research on **Control Dynamics** for one year. \$4,800. 1982-83
5. St. Paul's Cathedral, Peoria, Illinois. \$2,000 for studies on **building energy utilization**. 1982
6. The Lutheran Nursing Home and Retirement Facility, Peoria, Illinois. \$3,000 for research on **human thermal comfort and energy consumption**. 1983
7. Central Illinois Light Co. Identification and Evaluation of **Energy Efficient Systems** in Residential Buildings. \$18,000 1984-87
8. Indo-US Commission on Education. \$18,000 to do research on **Effects of Energy Efficiency on Indoor Air Quality**. 1986
9. HECA grant for developing two new courses. \$6,000. 1986-87
10. Principal Investigator and Project Director of a project entitled "Implementation of Undergraduate **Modern Instrumentation Lab**" National Science Foundation.

\$47,000. 1988-91

11. Principal Investigator and Project Director of a contract with Dr. Weinstein for **Demand Side Management** studies. CILCO. \$77,817. 1991-94
12. Principal Investigator and Project Director on **Thermal Energy Storage**. CILCO. \$11,500. 1992-93
13. Principal Investigator and Project Director of a research project on the Experimental Validation of an **Ice Storage Thermal System**. CILCO. \$17,800. 1993-94.
14. Director, Energy Analysis and Diagnostic Center (EADC) at Bradley University U. S. Department of Energy. \$67,525. **Energy Audits for Manufacturers**. 1993-94
15. Director, Industrial Assessment Center (IAC) at Bradley University. U. S. Department of Energy. **Energy Audits for Manufacturers** \$120,450. 1994-95
16. Director, Industrial Assessment Center (IAC) at Bradley University. U. S. Department of Energy. \$161,810. **Energy Audits for Manufacturers** 1995-96
17. Director, Industrial Assessment Center (IAC) at Bradley University. U. S. Department of Energy. \$150,750. **Energy Audits for Manufacturers** 1996-97.
18. Implementation of **Extended Audits**. U. S. Department of Energy. \$18,000. October, 1997
19. Director, Industrial Assessment Center (IAC) at Bradley University. U. S. Department of Energy. \$150,750. **Energy Audits for Manufacturers** 1997-98.
20. **Funding for Test Equipment**. U.S. Department of Energy. \$7,000. October 1998.
21. Development of **Energy Efficient Designs**. Illinois Department of Commerce and Community Affairs. \$106,636. April, 1998.
22. Director, Industrial Assessment Center (IAC) at Bradley University. U. S. Department of Energy. \$155,500. **Energy Efficiency, Waste Minimization and Productivity Enhancement in Manufacturing Facilities**. 1998-99.
23. **Implementation of Extended Audits**. U. S. Department of Energy. \$15,000. 1998-99
24. **Energy Education** Illinois Department of Commerce and Community Affairs. \$23,250. 1998-99.
25. Implementation of **Heat Recovery Devices**. U. S. Department of Energy. \$43,734. 1998-99.

26. Assistance for Research in **Energy Efficiency**. Graduate School at Bradley University. \$11,518. 1999-2000
27. Director, Industrial Assessment Center (IAC) at Bradley University. U. S. Department of Energy. \$152,500. **Energy Efficiency, Waste Minimization and Productivity Enhancement in Manufacturing Facilities** 1999-2000.
28. Director, Bradley University Industrial Assessment Center (IAC). U. S. Department of Energy (DOE) \$2.4 x 10<sup>6</sup> Million **Energy Efficiency, Waste Minimization and Productivity Enhancement in Manufacturing Facilities** 2000-to-date

**MEMBERSHIP IN PROFESSIONAL SOCIETIES:**

1. Member, American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE).
2. Member, American Society of Mechanical Engineers (ASME).
3. Member, Association of Energy Engineers (AEE).
4. Member, American Society of Engineering Education (ASEE).

**PUBLICATIONS:\***

1. Mehta, D. Paul, Woods, J.E. and Brueck, D.M. "A Rational Model for Thermodynamic Analysis of Occupied Spaces", **Proceedings of Energy Management Conference**, Iowa State University, October 28-30, 1978, p. 2.
2. Mehta, D. Paul. "Dynamic Thermal Responses of Buildings and Systems". Ph.D. Dissertation, Iowa State University, February, 1980.
3. Mehta, D. Paul, and Woods, J.E. "Accuracy of an Analytical Model to Predict Dynamic Thermal Responses of Building Systems". **Proceedings of International Congress on Building Energy Management**, Poroa de Varzim, Portugal. Pergamon Press, 1980.
4. Mehta, D. Paul, and Woods, J.E. "An Experimental Validation of a Rational Model for Dynamic Responses of Buildings". **ASHRAE Trans 86**, Part 2, 1980, p.497.
5. Mehta, D. Paul. "Applications of an Analytical Model to Determine the Effects of Air Supply Rates on Energy Consumption". **Advances in Energy Utilization Technology, Proceedings of the 4th World Engineering Congress**, October 12-15, 1981, p. 78.
6. Mehta, D. Paul. "Effects of Thermal Insulation on the Dynamics of an Occupied Space in a Building System". **Journal of Thermal Insulation**. Vol. 5, (October 1981) p. 78.

7. Mehta, D. Paul. "Effects of Air Supply Rates on Occupied Space Dynamics and Energy Consumption". Journal of Energy Engineering AEE. Vol. 78, No. 6, 1981, p. 43.
8. Mehta, D. Paul. "Insulation Measurements on an Existing Building at Bradley University Campus". Fourth International Conference on Thermal Insulation. Millbrae, California, January 18-20, 1982.
9. Mehta, D. Paul. "Validation of Envelope Thermal Characteristics for an Existing Building". Journal of Thermal Insulation. Vol. 5, 1981, p. 173.
10. Mehta, D. Paul. "Dynamic Effects of Insulation on Energy Consumption in Buildings". Proceedings of the Third European Conference on Building Materials, June 21-22, 1982, Nice, France.

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\* Publications prior to 1978 not included in this list.

11. Mehta, D. Paul. "Influence of Two-Position Control Dynamics on Energy Utilization in Buildings" Advances in Energy Productivity, Proceedings of the 5th World Energy Engineering Congress, September 14-17, 1982, Atlanta, Georgia. p. 69.
12. Mehta, D. Paul. "Effects of Control Dynamics on Energy Consumption in Residential Heating Systems." Journal of Energy Engineering, AEE, Vol. 80 (3) 1983. p. 7.
13. Mehta, D. Paul, and Max A. Wessler. "An Undergraduate Digital Systems Laboratory". Proceedings of the Engineering Foundation Conference. Henniker, N.H. July 25-29, 1983.
14. Mehta, D. Paul, and Max A. Wessler. "Microprocessors in an Undergraduate Mechanical Engineering Laboratory". Frontiers in Education Conference. ASEE and IEEE. Oct. 17-19, 1983. Worcester, MA. p. 115.
15. Mehta, D. Paul, and John E. Kharsa. "Effects of Proportional Control Dynamics on Energy Consumption in Environmental Control Systems". Proceedings of the 6th World Energy Engineering Congress, November 28-December 2, 1983, Atlanta, Georgia.
16. Mehta, D. Paul. "Control Component Modeling in HVAC Systems" Proceedings of the Workshop on HVAC Control and Simulation. Sponsored by ASHRAE and held at the Georgia Institute of Technology. Atlanta, Georgia. February 2-3, 1983.
17. Mehta, D. Paul, and Max A. Wessler. "Microcomputers Based Undergraduate Instruction for Mechanical Engineers". The Impact of Information Technology on

Engineering Education. Proceedings of the Annual Conference of the European Society for Engineering Education. Erlangen, W. Germany, 1984. p. 325.

18. Mehta, D. Paul. "Control Component Coupling in Environment Control Systems" presented at the Winter meeting of ASHRAE, Chicago, January 1985.
19. Mehta, D. Paul, J. G. Moroz; and D. C. Zietlow. "Implementation of a Computer Controlled Data Acquisition System for Performance Evaluation of a Heat Pump." Proceedings of the Fourth International Conference on Systems Engineering. Coventry; U. K. Sept. 9-11, 1985. P. 19-23.
20. Mehta, D. Paul, D. J. Roche, and D. C. Zietlow. "Implementation of a Telecommunications Based Data Acquisition System for Evaluating an Earth Coupled Heat Pump." Proceedings of the 2nd National Conference on Microcomputer Applications for Conservation and Renewable Energy (NCMACRE '86) Tucson, AZ Oct. 21-23, 1986.
21. Mehta, D. Paul; D. J. Roche; and D. C. Zietlow. "Impact of Heat Pump Water Heaters on Utility Companies and on Home Owners." Proceedings of the 9th World Energy Engineering Congress. Atlanta, GA Oct. 22-24, 1986; p. 541.
22. Mehta, D. Paul. "Dynamic Performance of PI Controllers" ASHRAE Technical Data Bulletin. Energy Management Strategies. Vol. 3 No. 2. 1987. Pp. 90-108.
23. Mehta, D. Paul. "Dynamic Performance of PI controllers Experimental Validation". ASHRAE Trans: 94, Part 1; New York, N.Y. January 18-21, 1987. p. 1775.
24. Mehta, D. Paul. "Personal Computer Based Data Acquisition Systems for Mechanical Engineers"; Proceedings of the 1988 Annual Conference. American Society for Engineering Education, Portland, Oregon June 19-23, 1988 p. 1639.
25. Mehta, D. Paul. "Microprocessors in an Undergraduate Instrumentation Lab in Mechanical Engineering"; Proceedings of the 1988 Annual Conference. American Society for Engineering Education. Portland, Oregon. June 19-23, 1988. p. 1649.
26. Mehta, D. Paul. (with D. C. Zietlow) "Use of Spread Sheets in Energy Estimating Methods". ASHRAE Trans. 95 Part 2. Ottawa, Canada June 26-28, 1988.
27. Mehta, D. Paul; and D. C. Zietlow. "Heat Pump Performance Evaluation". Proceedings of the 11th World Energy Engineering Congress. Association of Energy

- Engineers, Atlanta, GA October 19-21, 1988 p. 293.
28. Mehta, D. Paul, and Thumann, Albert. **Energy Engineering Handbook**, Fairmont Press, 1989.
  29. Mehta, D. Paul. "Interfacing Personal Computers to Microprocessor-Based Data Acquisition Systems", **COED Journal**, **ASEE** (3), July, 1989.pp. 17-23.
  30. Mehta, D. Paul. "Energy Efficiency in Buildings Through Automatic Controls". **Proceedings of the 12th World Energy Engineering Congress**. Association of Energy Engineers. Atlanta, GA, October 25-27, 1989.
  31. Mehta, D. Paul. "Modeling of Thermal Dynamic Responses of Occupants in Controlled Environments". **Advances in Bioengineering**. The American Society of Mechanical Engineers. November 1990. p. 281.
  32. Mehta, D. Paul (with Albert Thumann). **Energy Engineering Handbook**. 2nd Edition. Prentice Hall, June 1991.
  33. Mehta, D. Paul. "Implementation of Undergraduate Modern Instrumentation Laboratory for Mechanical Engineers". **Proceedings of the 1992 Annual Conference American Society for Engineering Education**. Toledo, OH, June 1992.
  34. Mehta, D. Paul. "Repair/Replacement of Existing Air-conditioning System at St. Paul Cathedral". a report prepared for CILCO, December 1992.
  35. Mehta, D. Paul. "On Site Evaluation of Potential Thermal Energy Storage (TES) Program Participation by Seven Local Facilities". a series of reports prepared for CILCO. December 1992.
  36. Mehta, D. Paul, and EADC Students. "Energy Conservation For Small and Medium Sized Manufacturers in Illinois." **Vols. 1-15. U.S.Department of Energy. 1993-94.**
  37. Mehta, D. Paul. "Feasibility Analysis for Thermal Energy Storage (TES) System at Grace Presbyterian Church". A report prepared for CILCO, May 1993.
  38. Mehta, D. Paul. "Feasibility of Using Window Type Heat Pumps at Sterling Towers." A report prepared for PHA. July 1993.
  39. Mehta, D. Paul. "An Experience on Computer Control of Microprocessor Based Data Acquisition for Mechanical Engineers." **Proceedings of the First International Conference on Mechanical Engineering Advanced Technology for Industrial Production**. MEATIPI; ASSUIT, EGYPT. Dec. 27-29, 1994. pp 583-593.

40. Mehta, D. Paul, and EADC Students. "Energy Conservation for Small and Medium Sized Manufacturers in Illinois." **Vols. 16-45. U.S. Department of Energy. 1994-95**
41. Mehta, D. Paul (with Albert Thumann). **Energy Engineering Handbook**. 3rd Edition, Prentice Hall, 1995.
42. Mehta, D. Paul and IAC Students. "Energy Conservation and Waste Minimization for Small and Medium Sized Manufacturers in Illinois." **Vols. 46-75. U.S. Department of Energy. 1995-96.**
43. Mehta, D. Paul. "Air is Not Free for Agile Manufacturing", **International Journal of Agile Manufacturing**. Vol 1(2). 1998, pp 91-98.
44. Mehta, D. Paul, and IAC Students. "Energy Conservation, Waste Minimization, and Productivity Enhancement for Small and Medium Sized Manufacturers in Illinois".**Vols. 76-100 U.S. Department of Energy. 1996-97**
45. Mehta. D. Paul. (with Albert Thumann) **Energy Engineering Handbook**. Prentice Hall. Fourth Edition. 1997.
46. Mehta, D. Paul. And IAC Students. "Energy Conservation, Waste Minimization, and Productivity Enhancement for Small and Medium Sized Manufacturers in Illinois." **Vols. 100-125. U. S. Department of Energy 1997-98**
47. Mehta, D. Paul "Energy Conservation Analysis, Design and Implementation." Justrite Mfg. Illinois Department of Commerce and Community Affairs. 1999.
48. Mehta, D. Paul and IAC Students. "Energy Conservation, Waste Minimization, and Productivity Enhancement for Small and Medium Sized Manufacturers in Illinois." **Vols. 126-150. U.S. Department of Energy. 1998-99.**
49. Mehta, D. Paul. "Implementatin of Heat Recovery Devices." **Proceedings of the IAC Directors Meeting. Kennebunkport, ME.** August 9-11, 1999.
50. Mehta, D. Paul and IAC Students. "Energy Conservation, Waste Minimization, and Productivity Enhancement for Small and Medium Sized Manufacturers in Illinois." **Vols. 151-155. U. S. Department of Energy 1999-2000.**
51. Mehta, D. Paul. "Waste Heat Recovery from a Low Temperature Heat Source". **Journal of Energy Engineering**. Vol. 97. No. 1, February, 2000.
52. Mehta, D. Paul. "Energy Efficient Design of a Waste Heat Rejection System." **Proceedings of the Twenty-second National Industrial Energy Technology Conference. April 5-6, 2000. Houston, TX.**

53. Mehta, D. Paul. "Utilizing Input Heat Source for Optimal Operation of Chillers". Proceedings of 23<sup>rd</sup> World Energy Engineering Congress. Atlanta, GA. October 25-27, 2000 p.13-23.
54. Mehta, D. Paul. "Industrial Assessments for Small and Medium Sized Manufacturing Plants in Illinois." **Vols. 156-197, U. S. Department of Energy 2000-2001.**
55. Mehta, D. Paul. (with Albert Thumann) Energy Engineering Handbook Prentice-Hall, fifth Edition 2001.
56. Mehta, D. Paul. "Development of Energy Efficient Strategies for Low Temperature Heat Recovery Devices". Proceedings of the IAC Directors Meeting, Breckenridge, CO., July 21-24, 2002
57. Mehta, D. Paul, C. V. Kulkarni. "Heat Recovery Strategies for Low Temperature Heat Sources". Solutions for Energy Security. Proceedings of the 25<sup>th</sup> World Energy Engineering Congress. October 9-11, 2002. Atlanta, GA p.177-190.
58. Mehta, D. Paul. "Industrial Assessments for Small and Medium Sized Manufacturing Plants in Illinois." **Vols. 198-219, U. S. Department of Energy 2001-2002.**
59. Mehta, D. Paul. "Compressed Air Systems Optimization". Energy Engineering Handbook. Prentice-Hall, Fifth Edition 2001. Chapter 15. pp 391-418.
60. Capehart, B.L.; Mehta, D. Paul and Wayne C. Turner; "Distributed Generation and Your Energy Future". Cogeneration and Distributed Generation Journal. Vol. 18, No. 4. Fall, 2003. pp 17-33
61. Mehta, D. Paul. "Industrial Assessments for Small and Medium Sized Manufacturing Plants in Illinois". **Vols. 220-249. U. S. Department of Energy 2002-2003.**
62. Mehta, D. Paul. "Industrial Assessments for Small and Medium Sized Manufacturing Plants." **Vols. 250-274. U. S. Department of Energy 2003-2004.**
63. S. M. Najafi, Mehta, D. Paul, and David C. Zietlow. "An Analysis of Data at an Industrial Assessment Center for Improving Energy Efficiency". Proceedings of the American Council on Energy Efficient Economy (ACEEE) Conference. West Point, N. Y., July 20-22, 2005.
64. Mehta, D. Paul. High Temperature Heat Recovery Through Waste Heat Boilers." Presented at the 4<sup>th</sup> International Conference on Heat Transfer, Fluid Mechanics, and Thermodynamics. (HEFAT 2005), Cairo, Egypt. September 19-

22, 2005.

65. Mehta, D. Paul. "Optimization of Heat Treatment of Machinery Components." Presented at the 9<sup>th</sup> **International Conference on Trends in the Development of Machinery and Associated Technology. (TMT 2005), Antalya, Turkey, Sept. 26-30, 2005.**
66. Mehta, D. Paul. "Industrial Assessments for Small and Medium Sized Manufacturing Plants in Illinois." **Vols. 317-333, U. S. Department of Energy 2006-2007.**
67. Mehta, D. Paul and Amol Nayak. "Recent Trends in Oxy-Fuel, Air-Fuel and Hybrid combustion Technologies", **Proceedings of the Summer Study Conference, American Council of Energy Efficient Economy (ACEEE), in White Plains NY July 24-27, 2007.**
68. Mehta, D. Paul and IAC Students "Energy Conservation, Waste Minimization, and Productivity Enhancement for Small and Medium Sized Manufacturers in Illinois". **Vols. 275-350. U. S. Department of Energy 2003-2008.**
69. Mehta, D. Paul. "Industrial Assessments for Small and Medium Sized Manufacturing Plants in Illinois". **Vols. 275-296, U. S. Department of Energy 2004-2005.**
70. Mehta, D. Paul. "Industrial Assessments for Small and Medium Sized Manufacturing Plants in Illinois". **Vols. 297-326, U.S. Department of Energy 2005-2006.**
71. Mehta, D. Paul. "Impact of 1973 Oil Embargo and 2005 Katrina on Energy Efficiency", **Proceedings of the Industrial Energy Technology Conference in New Orleans, May 8-11, 2007.**
72. Mehta, D. Paul. "Implementation of Emerging Technologies for NOx Reductions" **Proceedings of the 6<sup>th</sup> International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT) 2008. University of Pretoria, South Africa. June 30-July 2, 2008.**
73. Mehta, D. Paul. "Save Energy Now (SEN) with Best Practices" **Proceedings of the 30<sup>th</sup> World Energy Engineering Congress, Association of Energy Engineers, Washington, D. C. October 1-3, 2008.**
74. Mehta, D. Paul. "Waste Heat Recovery Using Advanced Transport Membrane Condenser". **4<sup>th</sup> International Conference on Energy Research and Development, Kuwait City, Kuwait, Nov. 17-19, 2008.**
75. Mehta, D. Paul and Albert Thumann. Energy Engineering Handbook. **6<sup>th</sup> Edition, Prentice Hall, 2008.**
76. Mehta, D. Paul. "Waste Heat Recovery" Chapter 8.

**Handbook of Energy Management by Steve Doty and Wayne Turner. Fairmont Press, Lilburn, GA 2008.**

77. Mehta, D. Paul. "Impacts of Save Energy Now (SEN) Program" **Journal of Energy Engineering. 2009**

**Public Addresses**

- Mehta, D. Paul, and Woods, J.E. "Accuracy of an Analytical Model to Predict Dynamic Thermal Responses of Building Systems". Proceedings of International Congress on Building Energy Management, Poroa de Varzim, Portugal. Pergamon Press, 1980.
- Mehta, D. Paul, and Woods, J.E. "An Experimental Validation of a Rational Model for Dynamic Responses of Buildings" ASHRAE Trans 86, Part 2, 1980.
- Mehta, D. Paul. "Applications of an Analytical Model to determine the Effects of Air Supply Rates on Energy Consumption". Advances in Energy Utilization Technology, Proceedings of the 4th World Engineering Congress, October 12-15, 1981.
- Mehta, D. Paul. "Insulation Measurements on an Existing Building at Bradley University Campus". Fourth International Conference on Thermal Insulation. Millbrae, CA, January 18-20, 1982.
- Mehta, D. Paul. "Energy Efficiency Related Education and Research at Bradley University". Mayor's Energy Task Group. City of Peoria, Peoria, IL. November, 1982.
- Mehta, D. Paul. "Dynamic Effects of Insulation on Energy Consumption in Buildings". Proceedings of the Third European Conference on Building Material, June 21-22, 1982, Nice, France.
- Mehta, D. Paul. "Influence of Two-Position Control Dynamics on Energy Utilization in Buildings". Advances in Energy Productivity, Proceedings of the 5th World Energy Engineering Congress, September 14-17, 1982, Atlanta, GA.
- Mehta, D. Paul, and Max A. Wessler. "An Undergraduate Digital Systems Laboratory". Proceedings of the Engineering Foundation Conference. Henniker, N.H. July 25-29, 1983.
- Mehta, D. Paul, and Max A. Wessler. "Microprocessors in an Undergraduate Mechanical Engineering Laboratory" Frontiers in Education Conference. ASEE and IEEE. October 17-19, 1983. Worcester, MA. p. 115
- Mehta, D. Paul. "ASHRAE Related Education and Research

- at Bradley University". Central Illinois Chapter of ASHRAE. Peoria, IL September 5, 1983.
- Mehta, D. Paul. "Control Component Modeling in HVAC Systems". Proceedings of the Workshop on HVAC Controls and Simulation. Sponsored by ASHRAE and held at the Georgia Institute of Technology. Atlanta, GA. February 2-3, 1984.
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  - Mehta, D. Paul. "Control Component Coupling in Environment Control Systems" presented at the Winter meeting of ASHRAE, Chicago, January 1985.
  - Mehta, D. Paul. "Dynamic Performance of PI Controllers - Experimental Validation". ASHRAE Trans: 94, Part 1; New York, N.Y. January 18-21, 1987.
  - Mehta, D. Paul. "Personal Computer Based Data Acquisition Systems for Mechanical Engineers"; Proceedings of the 1988 Annual Conference. American Society for Engineering Education, Portland, Oregon June 19-23, 1988.
  - Mehta, D. Paul. "Microprocessors in an Undergraduate Instrumentation Lab in Mechanical Engineering"; Proceedings of the 1988 Annual Conference. American Society for Engineering Education. Portland, Oregon. June 19-23, 1988.
  - Mehta, D. Paul. (with D. C. Zietlow) "Use of Spread Sheets in Energy Estimating Methods". ASHRAE Trans. 95 Part 2. Ottawa, Canada June 26-28, 1988.
  - Mehta, D. Paul; and D. C. Zietlow. "Heat Pump Performance Evaluation". Proceedings of the 11th World Energy Engineering Congress. Association of Energy Engineers, Atlanta, GA October 19-21, 1988.
  - Mehta, D. Paul. "Energy Efficiency in Buildings Through Automatic Controls". Proceedings of the 12th World Energy Engineering Congress. Association of Energy Engineers. Atlanta, GA, October 25-27, 1989.
  - Mehta, D. Paul. "Modeling of Thermal Dynamic Responses of Occupants in Controlled Environments". Advances in Bioengineering. The American Society of Mechanical Engineers. November 1990. p. 281.

- Mehta, D. Paul. "Implementation of Undergraduate Modern Instrumentation Laboratory for Mechanical Engineers". Proceedings of the 1992 Annual Conference American Society for Engineering Education. Toledo, OH, June 1992.
- Mehta, D. Paul. "Air is Not Free for Agile Manufacturing", Proceedings of the International Conference on Agile Manufacturing, ICAM, Lafayette LA, February 23-25, 1997.
- Mehta, D. Paul "Energy Conservation Analysis, Design and Implementation." Justrite Mfg. Illinois Department of Commerce and Community Affairs. 1999.
- Mehta, D. Paul. "Implementation of Heat Recovery Devices." Proceedings of the IAC Directors Meeting. Kennebunkport, ME. August 9-11, 1999.
- Mehta, D. Paul. "Energy Efficient Design of a Waste Heat Rejection System." Proceedings of the 22<sup>nd</sup> National Industrial Energy Technology Conference. April 5-6, 2000 Houston, TX.
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### Professional Service

- Reviewed technical papers for ASHRAE.
- Served on NSF Panels to review proposals for funding under the ILI Program for 3 years.
- Served U.S. Department of Energy to review National Industrial Competitiveness through Energy, Environment and Economics (NICE<sup>3</sup>) proposals for 3 years.
- Organized and Chaired Technical Sessions for ASHRAE and AEE.
- Served on Technical committees of ASHRAE and ASME.
- Reviewed Materials for Faculty Promotion and Tenure of several Universities in the U.S.

## Community Service

- **Vice-President**, India Association of Peoria. (1995-96)
- **President**, India Association of Peoria.(1996-97)
- **Member**, "City of Character" Task Group appointed by the Mayor. (October 1997-1999)
- **Commissioner**, City of Peoria **Police and Fire Commission**, nominated by the Mayor and appointed by the Peoria City Council. (October 1997 - 2007).
- **Director, Board of Directors**, Chicago - South Land Bureau of Visitors and Conventions.