Resume of Arijit K Sengupta, Ph.D., Associate Professor
Department of Engineering Technology
Program Director, Occupational Safety & Health Engineering MS Program
Department of Mechanical and Industrial Engineering
New Jersey Institute of Technology
Newark, NJ 07102-1982, USA

Personal Profile

Dr. Sengupta is an Associate Professor in the department of Engineering Technology at New Jersey Institute of Technology (NJIT). He has also joint appointment as the Program Director of the Occupational Safety and Health Engineering (OSHE) Masters Program under the department of Mechanical and Industrial Engineering at NJIT. He teaches graduate courses in ergonomics and safety in OSHE program and undergraduate courses in engineering under the Engineering Technology department. His research interests include industrial workstation design, physiological cost of work, biomechanical modeling, engineering anthropometry and human modeling.

Academic

Ph.D. in Industrial Engineering, Dalhousie University, Halifax, Nova Scotia, Canada, 1995.
M. Tech. in Mechanical Engineering, National Institute of Technology, Durgapur, West Bengal, India, 1983.
B. E. in Mechanical Engineering, National Institute of Technology, Durgapur, West Bengal, India, 1976.

Professional Interests

Research: Industrial ergonomics, manufacturing workstation Design, biomechanics, anthropometric modeling, computer simulation models, human models.
Teaching: Occupational Ergonomics, Occupational Safety, Operations Management, Engineering Economy, Manufacturing Processes, Numerical Control Programming, Machine Design and Industrial Statistics.

Publications

1. Sengupta, A. K., Das, B. and Cyrus, P. 2009, Performance improvement analysis of a supermarket checkstand*:* A computer simulation approach*, International Journal of Productivity and Performance Management*, accepted for publication.
2. Williams, J.M. and Sengupta, A.K. 2007, Effect of glove port height on shoulder and back stresses, ACE 2007 Conference, 38th Annual Conference of the Association of Canadian Ergonomists, Marriott Eaton Centre, Toronto, Ontario, October 14 - 17, 2007, CD rom.
3. Sengupta, A, Grabiner, S, Kothari, P. and Martinez, G. 2007, Ergonomic aspects of personal digital assistant (PDA) and laptop use, Book of abstracts, PREMUS 2007 conference, Sixth International Scientific Conference on Prevention of Work-Related Musculoskeletal Disorders, Boston, USA, 27–30 August 2007, page 17.
4. Sengupta, A.K. and Brown, R. J. 2005, Do industrial back belts reduce back injury risk?, Conference proceedings of HWWE 2005, Humanising Work and Work Environment,10-12 December 2005, at the Indian Institute of Technology, Guwahati, Assam, India, 25-30.
5. Sengupta, A.K. and Das, B. 2004, Determination of worker physiological cost in workspace reach envelopes. *Ergonomics*, 2004, vol. 47, No. 3, 330-342.
6. Das B., Kozey J. W. and Sengupta A.K. 2003, Redesign of a supermarket checkstand workstation: An ergonomic approach, Quality of Work and Products in Enterprises of Future, Eds. H. Strasser et al., Ergonomica Verlog, Stuttgart, 263-266.
7. Das B., Kozey J. W., and Sengupta A.K. 2003. Evaluation of an ergonomically designed supermarket checkstand workstation., Quality of Work and Products in Enterprises of Future, eds. H. Strasser et al., Ergonomica Verlog, Stuttgart, 2003, 271-274.
8. Das. B, Kozey, J W., Sengupta, A. K. 2002, Ergonomics evaluation of supermarket checkstand workstations, Proceedings of the ACE-AE 2002 Conference, Banff, Alberta, Canada, October 21-23, 2002, CD rom.

9. G.V. Newman, R.A. Newman and Sengupta, A.K.. 2001, Comparative assessment of light-cured resin modified glass ionomer and composite resin adhesives: In vitro study of a new adhesive system, *American Journal of Orthodontics and Dentofacial Orthopedics,* March 2001, Vol 119, Number 3, 256-262.

10. Sengupta, A. K. and Das, B. 2001, Extreme reach envelope for industrial workstation design, the Proceedings of International Conference on Computer-Aided Ergonomics and Safety, held in Maui, Hawaii, July 29- August 1, 2001, CD rom.

11. Sengupta, A.K., Jeng, O and Reichert, P. 2001, Perceived effort and back injury risks of physical therapists in patient transfers between bed and wheelchair, Advances in Occupational Ergonomics and Safety - V, ed. IOS Press, Proceedings of the XV Annual International Occupational Ergonomics and Safety Conference 2001, Fairfax, Virginia, June 4-7, 2001, Pages 80-85.

12. Das, B. and Sengupta, A.K. 2000, Evaluation of low back pain risks in beef skinning operations, *Journal of Occupational Safety and Ergonomics*, Volume 6, Number 3, 347-361.

13. Sengupta, A. K., and Das, B. 2000, Maximum reach envelope for the seated and standing males and females for industrial workstation design, *Ergonomics*, Volume 43, No. 9, 1390-1404.

14. Wang, Y., Das, B., and Sengupta, A.K. 1999, Normal horizontal working area: the concept of inner boundary, *Ergonomics*, 1999, vol.42, No. 4, 638-646.

15. Sengupta, A.K. and Das, B. 1999, Determination of the maximum reach envelope for Industrial workstation design, Advances in Occupational Ergonomics and Safety, ed. Gene C. H. Lee, IOS Press, Proceedings of the XIV Annual International Occupational Ergonomics and Safety Conference, Orlando, FL, June 6-9, 1999, Vol. 3, Pages 59-64.

16. Sengupta, A.K. and Das, B. 1998, A model for three dimensional maximum reach envelope based on structural anthropometric measurements, Advance in Occupational Ergonomics and Safety, ed. Shrawan Kumar, IOS Press, Proceedings of the XIIIth Annual International Occupational Ergonomics and Safety conference 1998, Ypsilanty, MI, June 11-14, 1998. Pages 256-259.

17. Das, B., and Sengupta, A.K. 1998, Electromyographic assessment of task performance in workspace reach envelope, Advance in Occupational Ergonomics and Safety, ed. Shrawan Kumar, IOS Press, Proceedings of the XIIIth Annual International Occupational Ergonomics and Safety Conference 1998, Ypsilanty, MI, June 11-14, 1998. Pages 226-229.

18. Das, B., and Sengupta, A.K. 1998, Biomechanical and ergonomic evaluations of a beef skinning operation, Proceedings of the 7th Annual Industrial Engineering Research Conference of the Institute of Industrial Engineers, Alberta, Canada, May 9-10, 1998. CD-ROM.

19. Sengupta, A.K. and Das, B. 1997, HUMAN: An AutoCAD based three dimensional anthropometric human model for workstation design, *International Journal of Industrial Ergonomics*, 1997 (19), 347-352.

20. Sengupta, A.K. and Das, B. 1997, Metabolic cost of repetitive arm work in an industrial workstation setting, Advance in Occupational Ergonomics and Safety, eds. Waldemer Karwowski and Biman Das, IOS Press, Proceedings of the Annual International Occupational Ergonomics and Safety Conference, Washington, DC, June 1-4, 1997. Pages 325-328.

21. Das, B. and Sengupta A. K. 1996, Industrial workstation design: a systematic ergonomics approach. *Applied Ergonomics*, vol. 27, No. 3, 157-163.

22. Sengupta. A..K. 1996, Computer-aided human-machine interface design, Technology Based Re-Engineering Engineering Education, CAEME, Proceedings of the Frontiers in Education FIE'96 26th Annual Conference, Salt Lake City, Utah, November 6-9, 1996, Pages145-148.

23. Das, B. and Sengupta, A.K. 1995. Computer-aided human modeling programs for workstation design, *Ergonomics*, vol 38, number 9, 1958-1972.

24. Wang, Y., Das, B., and Sengupta, A. K. 1995, A model for determining the inner boundary of the normal horizontal working area, Proceedings of the Annual Conference of the Human Factors Association of Canada, Quebec City, Quebec, Canada, October 22 -25, 1995.

25. Das, B., Cyrus, J. P. and Sengupta, A. K. 1993, Computer simulation comes to work design and measurement: A case study, Proceedings of International Conference on CAD, CAM, Robotics and Factories of Future, New Delhi, Dec. 16-19, 1993, Pages 547-556.

26. Sengupta, A. K. and Das, B. 1993, A three dimensional anthropometric human model using AutoCAD for industrial workstation design". In The Economics or Ergonomics, Proceedings of the 26th Annual Conference of the Human Factors Association of Canada, Fredericton, Aug 8 - 11, 1993, Pages 1-4.

27. Das, B., and Sengupta A. K. 1993, A systematic approach to industrial workstation design, Proceedings of the IEA World Conference '93 on Ergonomics of Material Handling, Warsaw, Poland, June 14 - 17, 1993, Pages 577-580.

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29. Das, B. and Sengupta, A. K. 1992, The assessment of conventional and computer-aided industrial workstation design methodologies, Proceedings of the Annual International Industrial Ergonomics and Safety Conference '92, Denver, Colorado, June 7-9, 1992, Pages 1093-1100.

Citations

Following is the list of citations of journal papers authored by Dr. Sengupta. Citations by researchers other than Dr. Sengupta have only been included in the citation list.

- Sengupta, A.K. and Das, B. 2004, Determination of worker physiological cost in workspace reach envelopes. *Ergonomics*, 2004, vol. 47, No. 3, 330-342, cited in:

1. The effects of dynamic movement on seated reach arcs, by Holman, G.T., Davis, J., Maghsoodloo, S. 2008 Ergonomics 51 (5), pp. 691-701
2. Analysis of horizontal whole body-movements by transporting unstable objects, Diaz-Zeledon, M., Lin, C.-L., Landau, K. 2007 Occupational Ergonomics 7 (4), pp. 247-263.
3. Determinants guiding alternate foot placement selection and the behavioral responses are similar when avoiding a real or a virtual obstacle, Moraes, R., Patla, A.E. 2006 Experimental Brain Research 171 (4), pp. 497-510.

- Das, B. and Sengupta, A.K. 2000, Evaluation of low back pain risks in beef skinning operations, *Journal of Occupational Safety and Ergonomics*, Volume 6, Number 3, 347-361, has been cited in,

4. Effects of erector spinae muscle fatigue on trunk repositioning accuracy in forward and lateral flexion , Iwasa, K., Miyamoto, K., Shimizu, K. 2005 Journal of Back and Musculoskeletal Rehabilitation 18 (3-4), pp. 61-66

- Sengupta, A. K., and Das, B. 2000, Maximum reach envelope for the seated and standing males and females for industrial workstation design, *Ergonomics*, Volume 43, No. 9, 1390-1404, has been cited in:

5. The effects of dynamic movement on seated reach arcs, Holman, G.T., Davis, J., Maghsoodloo, S. 2008 Ergonomics 51 (5), pp. 691-701
6. A data-based modeling approach of reach capacity and discomfort for digital human models, Wang, X., Chateauroux, E., Chevalot, N. 2007 Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics) 4561 LNCS, pp. 215-223.
7. A memory-based model for planning target reach postures in the presence of obstructions, Park, W., Singh, D., Martin, B.J. 2006 Ergonomics 49 (15), pp. 1565-1580
8. Effect of pressure suit on functional reach, Uppu, N.R., Aghazadeh, F., Nabatilan, L. 2006 Occupational Ergonomics 6 (3-4), pp. 129-142 .
9. Functional characteristics of users in tasks associated with grocery retail checkout: A literature review, Ringholz, D.A. 2005 Proceedings of the Human Factors and Ergonomics Society, pp. 828-831.
10. Ergonomically designed workstation based on simulation of worker's movements, Fulder, T., Pizmoht, P., Polajnar, A., Leber, M. 2005 International Journal of Simulation Modelling 4 (1), pp. 27-34.
11. Modelling of shoulder and torso perception of effort in manual transfer tasks, Kim, K.H., Martin, B.J., Chaffin, D.B. 2004 Ergonomics 47 (9), pp. 927-944
12. Determination of the normal and maximum reach measures of adult wheelchair users, Kozey, J.W., Das, B. 2004 International Journal of Industrial Ergonomics 33 (3), pp. 205-213.

- Wang, Y., Das, B., and Sengupta, A.K.. 1999, Normal horizontal working area: the concept of inner boundary, *Ergonomics*, 1999, vol.42, No. 4, 638-646, has been cited in,

13. Scaling affordances for human reach actions, Choi, H.J., Mark, L.S. 2004 Human Movement Science 23 (6), pp. 785-806.

- Sengupta, A.K. and Das, B. 1997, HUMAN: An AutoCAD based three dimensional anthropometric human model for workstation design, *International Journal of Industrial Ergonomics*, 1997 (19), 347-352, has been cited in,

14. Motion generation from MTM semantics, Kuo, C.-F., Wang, M.-J. 2009 Computers in Industry 60 (5), pp. 339-348

15. An online ergonomic evaluator for 3D product design, Kuo, C.-F., Chu, C.-H. 2005 Computers in Industry 56 (5), pp. 479-492

16. Development of a hierarchical estimation method for anthropometric variables, You, H., Ryu, T. 2005 International Journal of Industrial Ergonomics 35 (4), pp. 331-343

17. A computer-aided design-based system for posture analyses of motorcycles, Barone, S., Curcio, A. 2004 Journal of Engineering Design 15 (6), pp. 581-595

18. Human modeling and simulation: Establishing parameters for an adjustable notebook computer display, Stewart, A.M., Sommerich, C.M., Mirka, G.A., Lewis, G.E. 2001 Proceedings of the Human Factors and Ergonomics Society, pp. 682-686

19. Computer-aided ergonomics: A case study of incorporating ergonomics analyses into workplace design, Feyen, R., Liu, Y., Chaffin, D., Jimmerson, G., Joseph, B. 2000 Applied Ergonomics 31 (3), pp. 291-300.

- Das, B. and Sengupta A. K. 1996, Industrial workstation design: a systematic ergonomics approach. *Applied Ergonomics*, vol. 27, No. 3, 157-163, has been cited in,

20. A multimeasure-based methodology for the ergonomic effective design of manufacturing system workstations, Cimino, A., Longo, F., Mirabelli, G. 2009 International Journal of Industrial Ergonomics 39 (2), pp. 447-455.

21. A study on approaches to estimate body dimensions: Stature as an example, W.-C., Wang, E.M.-Y. 2008 Proceedings - 5th International Conference on Fuzzy Systems and Knowledge Discovery, FSKD 2008 4, art. no. 4666442, pp. 531-535.

22. Design and implementation of a fuzzy expert system for performance assessment of an integrated health, safety, environment (HSE) and ergonomics system: The case of a gas refinery , Azadeh, A., Fam, I.M., Khoshnoud, M., Nikafrouz, M. 2008 Information Sciences 178 (22), pp. 4280-4300

23. Safety behaviors assessment in process industry: A case study in gas refinery , Fam, I.M., Azadeh, A., Faridan, M., Mahjub, H. 2008 Journal of the Chinese Institute of Industrial Engineers 25 (4), pp. 298-305

24. The effects of dynamic movement on seated reach arcs, Holman, G.T., Davis, J., Maghsoodloo, S. 2008 Ergonomics 51 (5), pp. 691-701

25. Anthropometric data of female farm workers from north eastern India and design of hand tools of the hilly region, Dewangan, K.N., Owary, C., Datta, R.K. 2008 International Journal of Industrial Ergonomics 38 (1), pp. 90-100

26. Evaluation of worker productivity improvement using ISM and FAHP, Cheng, Y.L., Chiu, A.S.F., Tseng, M.L., Lin, Y.H. 2007 IEEM 2007: 2007 IEEE International Conference on Industrial Engineering and Engineering Management, art. no. 4419161, pp. 109-113

27. A design methodology to create constraint-based human movement patterns for ergonomic analysis, Mitchell, R.H., Medland, A.J., Salo, A.I.T. 2007 Journal of Engineering Design 18 (4), pp. 293-310

28. Smart workstation design: An ergonomics and methods engineering approach, Shikdar, A.A., Al-Hadhrami, M.A. 2007 International Journal of Industrial and Systems Engineering 2 (4), pp. 363-374

29. Workstation redesign for a repetitive drill press operation: A combined work design and ergonomics approach, Das, B., Shikdar, A.A., Winters, T. 2007 Human Factors and Ergonomics In Manufacturing 17 (4), pp. 395-410

30. Musculoskeletal problems among workers of an Iranian communication company, Choobineh, A., Tabatabaei, S., Tozihian, M., Ghadami, F. 2007 Indian Journal of Occupational and Environmental Medicine 11 (1), pp. 32-36

31. Functional characteristics of users in tasks associated with grocery retail checkout: A literature review, Ringholz, D.A. 2005 Proceedings of the Human Factors and Ergonomics Society, pp. 828-831

32. Task-based vehicle interior layout design using optimization method to enhance safety, Kim, J., Yang, J., Abdel-Malek, K., Nebel, K. 2005 Proceedings of SPIE - The International Society for Optical Engineering 5805, art. no. 05, pp. 54-65

33. Anthropometric dimensions of farm youth of the north eastern region of India , Dewangan, K.N., Prasanna Kumar, G.V., Suja, P.L., Choudhury, M.D. 2005 International Journal of Industrial Ergonomics 35 (11), pp. 979-989

34. Anthropometry of Thai technical university students, Yodpijit, N., Bunterngchit, Y., Lockhart, T.E. 2004 IIE Annual Conference and Exhibition 2004, pp. 899-904

35. Ergonomics, and occupational health and safety in the oil industry: A managers' response, Shikdar, A.A., Sawaqed, N.M. 2004 Computers and Industrial Engineering 47 (2-3), pp. 223-232

36. Worker productivity, and occupational health and safety issues in selected industries, Shikdar, A.A., Sawaqed, N.M. 2003 Computers and Industrial Engineering 45 (4), pp. 563-572

37. The relationship between worker satisfaction and productivity in a repetitive industrial task, Shikdar, A.A., Das, B. 2003 Applied Ergonomics 34 (6), pp. 603-610

38. Paraplegic trainees and operators in engineering/technology environments, O'Herlihy, E.P., Gaughran, W.F. 2002 ASEE Annual Conference Proceedings, pp. 3959-3966

39. Development of a software package for ergonomic assessment of manufacturing industry, Shikdar, A., Al-Araimi, S., Omurtag, B. 2002 Computers and Industrial Engineering 43 (3), pp. 485-493

40. Ergonomics evaluation and redesign of a hospital meal cart, Das, B., Wimpee, J., Das, B. 2002 Applied Ergonomics 33 (4), pp. 309-318

41. Limiting design criterion analysis of a relay type production line, Quintana, R., Skelton, G.W. 2002 Integrated Manufacturing Systems 13 (7), pp. 459-470

42. Ergonomics considerations and management action in the implementation of industrial robots, Das, B. 2001 Human Factors and Ergonomics In Manufacturing 11 (3), pp. 269-285

43. Isometric push-up and pull-down strengths of paraplegics in the workspace: 1. Strength measurement profiles, Das, B., Forde, M. 1999 Journal of Occupational Rehabilitation 9 (4), pp. 277-289

- Das, B. and Sengupta, A.K. 1995. Computer-aided human modeling programs for workstation design, *Ergonomics*, vol 38, number 9, 1958-1972, has been cited in,

44. Kinematic modeling and analysis of the human workspace for visual perceptibility, Masih-Tehrani, B., Janabi-Sharifi, F. 2008 International Journal of Industrial Ergonomics 38 (1), pp. 73-89

45. Simulation of complex human movement through the modulation of observed motor tasks, Andreoni, G., Rabuffetti, M., Pedotti, A. 2007 Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics) 4561 LNCS, pp. 3-12

46. An efficient approach to human motion modeling for the verification of human-centric product design and manufacturing in virtual environments, Mavrikios, D., Karabatsou, V., Pappas, M., Chryssolouris, G. 2007 Robotics and Computer-Integrated Manufacturing 23 (5), pp. 533-543

47. A design methodology to create constraint-based human movement patterns for ergonomic analysis, Mitchell, R.H., Medland, A.J., Salo, A.I.T. 2007 Journal of Engineering Design 18 (4), pp. 293-310

48. Key human factors of vehicle interior occupant packaging in SAE standard, Ding, Y., Hu, P., Jin, C.-N., Wu, X.-J. 2007 Journal of Beijing Institute of Technology (English Edition) 16 (1), pp. 38-44

49. Using ergonomic software in non-repetitive manufacturing processes: A case study, Santos, J., Sarriegi, J.M., Serrano, N., Torres, J.M. 2007 International Journal of Industrial Ergonomics 37 (3), pp. 267-275

50. Postural implications of obtaining line-of-sight for seated operators of underground mining load-haul-dump vehicles, Godwin, A., Eger, T., Salmoni, A., Grenier, S., Dunn, P. 2007 Ergonomics 50 (2), pp. 192-207

51. Multi-criteria upper-body human motion adaptation, Alexopoulos, K., Mavrikios, D., Pappas, M., Ntelis, E., Chryssolouris, G. 2007 International Journal of Computer Integrated Manufacturing 20 (1), pp. 57-70

52. Kinematic approach for the evaluation of human visual perceptibility in the workspace, Masih-Tehrani, B., Sharifi, F.J. 2006 Proceedings - IEEE International Conference on Robotics and Automation 2006, art. no. 1642259, pp. 3648-3653

53. An approach to human motion analysis and modeling, Mavrikios, D., Karabatsou, V., Alexopoulos, K., Pappas, M., Gogos, P., Chryssolouris, G. 2006 International Journal of Industrial Ergonomics 36 (11), pp. 979-989

54. Shoulder muscle activity increases with wrist splint use during a simulated upper-extremity work task, Mell, A.G., Friedman, M.A., Hughes, R.E., Carpenter, J.E. 2006 American Journal of Occupational Therapy 60 (3), pp. 320-326

55. Real-time optimal reach-posture prediction in a new interactive virtual environment, Yang, J., Marler, R.T., Beck, S., Abdel-Malek, K., Kim, J. 2006 Journal of Computer Science and Technology 21 (2), pp. 189-198

56. The Iowa interactive digital-human virtual environment, Yang, J., Abdel-Malek, K., Farrell, K., Nebel, K. 2004 American Society of Mechanical Engineers, Manufacturing Engineering Division, MED 15, art. no. IMECE2004-61791, pp. 1061-1069

57. Multi-objective optimization for upper body posture prediction, Yang, J., Marler, R.T., Kim, H., Arora, J.S., Abdel-Malek, K. 2004 Collection of Technical Papers - 10th AIAA/ISSMO Multidisciplinary Analysis and Optimization Conference 4, pp. 2288-2305

58. Muscular performance modeling of the upper limb in static postures, Mamaghani, N.K., Shimomura, Y., Iwanaga, K., Katsuura, T. 2003 Journal of Physiological Anthropology and Applied Human Science 22 (3), pp. 149-157

59. Ergonomics in product design: Safety factor, Sagot, J.-C., Gouin, V., Gomes, S. 2003 Safety Science 41 (2-3), pp. 137-154

60. Human modeling and simulation: Establishing parameters for an adjustable notebook computer display, Stewart, A.M., Sommerich, C.M., Mirka, G.A., Lewis, G.E. 2001 Proceedings of the Human Factors and Ergonomics Society, pp. 682-686

61. Activity simulation: An aid for a high-speed craft bridge design process, Le Bouar, G., Gomes, S., Sagot, J.-C. 2001 Marine and Maritime, pp. 161-170

62. Posture prediction versus inverse kinematics, Abdel-Malek, K., Yu, W., Mi, Z., Tanbour, E., Jaber, M. 2001 Proceedings of the ASME Design Engineering Technical Conference 2, pp. 37-45

63. Construction of a knowledge base for ergonomic design with human models, Jung, E.S., Kang, D. 2000 Proceedings of the XIVth Triennial Congress of the International Ergonomics Association and 44th Annual Meeting of the Human Factors and Ergonomics Association, 'Ergonomics for the New Millennium', pp. 711-714.

Editorial Activities

Dr. Sengupta is an Editorial Board Member of Occupational Ergonomics, IOS press, Amsterdam, The Netherlands from 2005- present. He reviews scholarly articles for journals (Ergonomics, Applied Ergonomics, Occupational Ergonomics, Manufacturing Systems, Colleguim Anthopoligicum) and various conference proceedings. He has acted as the News letter editor of International Society of Occupational Ergonomics and Safety (ISOES) from 2002 to 2004. He has also reviewed several text books and technical grant proposals.

- Recent reviewing activities of scholarly articles of journals and conference proceedings:

  1. March 6, 2008, Errors associated with bin boundaries in observation-based on posture ……, Andrews et al., *Occupational* Ergonomics - IOS press, Amsterdam.

  2. OE 0725: February 13, 2008, Ergonomic Evaluation of an Extension Screw Gun to Improve Posture by Hess et al. *Occupational Ergonomics* - IOS press, Amsterdam.

  3. M 21: Effect of the Number Pad on Mousing Location, *HFES 08 conference proceedings.*

  4. M 186: Haptic Perception in Minimally Invasive Surgical Tasks. *HFES 08 conference proceedings.*

  5. M 604: Examining Force and Impulse Production During Use of a Touch Screen for a Number Entry Task. *HFES 08 conference proceedings.*

  6. Rehabilitation Ergonomics: The clinical utility of ergonomic tools and Methodology, by Camplello. *HFES 08 conference proceedings.*

7. OE 0719: October 12, 2007, Hydraulic-actuation joystick use: a kinetic, kinematic and electromyographic description, by Murphy and Oliver. *Occupational Ergonomics* - IOS press, Amsterdam.
8. OE 718: June 27, 2007, Analysis of horizontal whole body-movements by transporting instable objects, by Diaz-Zeledon et al. *Occupational Ergonomics* - IOS press, Amsterdam.
9. BM-D-06-00068, The Effects of Dynamic Movement on Seated Reach Arcs, by Grady T. Holman et al. *Journal of Biomechanics* – Elsevier Publishers
10. OE 0611: Sep 21, 2006, Effect of humeral rotation, upper arm flexion, elbow flexion and forearm rotation …., by Mukhopadhya et al. *Occupational Ergonomics* - IOS press, Amsterdam.
11. Paper # MS0615, Simulation and Optimization of manual workstation using 2^3 factorial design. *The 17th IASTED International Conference on Modelling and Simulation, 2006*.
12. OE 606, May 30, 2006, Effects of proximity sensor feedback chair on head, shoulder and trunk postures ….by Yoo et al. Occupational *Ergonomics* - IOS press, Amsterdam.
13. MS #AE/05/179: Space interpretation criteria concerning static working posture by Gedliczka et al. *Applied Ergonomics* – Elsevier Publishers
14. OE 0425: March 1, 2005, Industrial Production of Food – risk survey of three manufacturing systems …., by Willquist and Ortengren. *Occupational Ergonomics* - IOS press, Amsterdam.
15. OE 0510: Oct 21, 2005, Evaluating human body area factors from digital images, by Calvino et al. *Occupational Ergonomics* - IOS press, Amsterdam.
16. Manuscript # 04/207: External and internal geometry of European volunteers" by Bertrand et al. *Ergonomics*, Taylor and Francis.
17. OE 0442: Sep 23, 2004, Do back support belts change the kinematics of lifting, by Pope et al. *Occupational Ergonomics* - IOS press, Amsterdam.
18. Manuscript number: 04/078. Enough recovery time after exhaustion in high-intensity work by H-C Wu, W-H Hsu and T Chen. *Ergonomics*, Taylor and Francis.
19. Manuscript #02/003: A training procedure for anthopometric measurements and criteria for application of the procedure. *Ergonomics*, Taylor and Francis.
20. March 25, 2002: A customizable machining feature extraction methodology for turned components. *Journal of Manufacturing Systems* - Society of Manufacturing Engineers, Dearborn, MI.
21. November 8, 2001: 3D computer modeling of sitting working place. *Colleguim Antropoligicum* - Croatian Anthropological Society, Zagreb, Croatia

- Text books reviewed:

22. Solutions for Engineering Economic Analysis –10th edition, by Newnan & Lavelle.
23. Operations Management by Gaither and Frazier, Sixth Edition, South Western - Thomson Learning.
24. Engineering Design Communication: Conveying Design Through Graphics by Lockhart and Johnson, Prentice Hall, Upper Saddle River, NJ.

- Grant proposals reviews for pilot study grants from NIOSH-NORA Educational and Research Center at the Department of Occupational Medicine, Mt. Sinai School of Medicine, NY:

25. Prevention of Work-related musculoskeletal disorders among orthopedic surgeons, September, 2002.
26. Operating room nurses' perception of ergonomic risk factors in a surgical environment, October, 2003.
27. The effects of the number of fingers on handle during forceful gripping, pushing and pulling tasks, December, 2008.

Funded Grant Proposals

1. PI, for the project "Occupational Safety and Health Training Grant: Occupational Safety Engineering" from the National Institute for Occupational Safety and Health (NIOSH), grant # T 42OH008422. Effective 1/7/2005-6/30/2010, $532,301. Objective of this training grant is to train engineering and science graduates in safety engineering.
2. PI for the project "Occupational Safety Program - NORA Research Grant", from NIOSH, Effective 7/1/05-6/30/10, $120,164. Objective of this research grant is to conduct research in the selected areas of The National Occupational Research Agenda (NORA).
3. PI for the project "Occupational Safety Program - Nora Research Grant", sponsored by the National Institute for Occupational Safety and Health (NIOSH)/ Mount Sinai School of Medicine, $ 188,788 effective from July 1, 2003 to June 30, 2005.
4. "Data Analysis and Experimental Validation of an Assisted Patient Transfer Study", PI (with Co-PI Dr. Jeng and Mr. Reichert), NY-NJ NIOSH ERC pilot project grant, $12,000, August 15, 2001 to August 14, 2002.
5. "Logistics problems in warehousing and distribution of perishable goods at Tropicana's Northeast distribution center", PI (with Co-PI Dr. Bladikas and Dr. Yang), NCTIP, $189,692, June 1, 2000 to May 31, 2001.
6. "Assessment of Spinal Loading and Back Pain Risks in Assisting Patient Transfers", PI (with Co-PI Dr. Jeng and Mr. Reichert). NY-NJ NIOSH ERC pilot project grant, $8,500, August 15, 2000 to August 14, 2001.
7. "Occupational Safety and Health Training Grant: Occupational Safety Engineering", Co-PI (with Dr. Jeng). National Institute for Occupational Safety and Health (NIOSH), $253,871, July 1, 2000 to June 30, 2003.
8. "Occupational Safety and Health Training Grant: Occupational Safety Engineering", Co-PI (with Dr. Jeng). National Institute for Occupational Safety and Health (NIOSH), $78,654, July 1, 1999 to June 30, 2000.
9. "Occupational Safety and Health Training Grant: Occupational Safety Engineering", Co-PI (with Dr. Jeng). National Institute for Occupational Safety and Health (NIOSH), $78,900, July 1, 1998 to June 30, 1999.
10. "Concurrent Engineering Design & Manufacturing", Co-PI, Gateway Coalition, NSF Grant, $80,000, 1997.
11. "Computer Aided Human-Machine Interface Design", PI, NJIT SBR Grant A/c # 421490, $14,139, 1997.
12. "Computer Aided Human-Machine Interface Design", PI, NJIT SBR Grant A/c # 421490 and 421780, $20,463, 1996.

Other Professional Activities

1. Member of Faculty Council of New Jersey Institute of Technology, 2003-05, and 2009- present
2. Executive Council Member and Newsletter Editor, 2002-2004, International Society of Occupational Ergonomics and Safety (ISOES), 10621 Jones Street, Suite 301-A, Fairfax, Virginia 22030.
3. Session Chair of Session#35: Grip Forces and Ergonomic Hand Tool Design - in the Conference "Quality of Work and Products in Enterprises of the Future", held in Munich, Germany, May 9, 2003.