

CURRICULUM VITAE

FLEUR T. TEHRANI

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EDUCATION

- Ph.D. Electrical Engineering, University of London, London, UK, 1981. Emphasis on systems and control engineering and their applications in biological systems.
- M.Sc. Communications Engineering, University of London, London, UK, 1977. Emphasis on digital communications and signal processing.
- D.I.C. Diploma of Membership of Imperial College, Communications Engineering, University of London, London, UK, 1977.
- B.S. Electrical Engineering, Arya-Mehr (Sharif) University of Technology, Tehran, Iran, 1975.

PROFESSIONAL LICENSE

- 1993- Present Registered Professional Engineer in Electrical Engineering, California License # E014242

RESEARCH INTERESTS

Biomedical Engineering, Respiratory Assist Devices, Systems Control, Digital Signal Processing. Applied Mathematics, Modern Physics

FULL-TIME ACADEMIC EXPERIENCE

- 1994 to Present Professor, Electrical and Computer Engineering (ECE) Department, California State University, Fullerton (CSUF), Fullerton, California.
- 1999 to 2001 Director, Pharmaceutical Engineering Program, CSUF, Fullerton, California.
- 1991-1994 Associate Professor, Electrical Engineering (EE) Department, CSUF, Fullerton, California.

- 1985-1991 Assistant Professor, EE Department, CSUF, Fullerton, California.
- 1987-1988 Visiting Associate Professor, Department of Electrical and Computer Engineering, Drexel University, Philadelphia, Pennsylvania.
- 1984 Lecturer II (Grade 9), Department of Electrical and Computer Engineering, Polytechnic of the South Bank, London, UK.
- 1982-1983 Lecturer A, Department of Electrical Engineering, Robert Gordon's Institute of Technology, Aberdeen, Scotland, UK.

PART-TIME ACADEMIC EXPERIENCE

- 1993-1995 Coordinator, Engineer in Training Program, University of California Irvine Extension, Irvine, California.
- 1991-1995 Part-time Faculty, University of California Irvine Extension, Irvine, California.
- 1988-1990 Part-time Faculty, West Coast University, Orange, California.

CONSULTING AND INDUSTRY EXPERIENCE

- 1997- Present Consultant, Biodyne Engineering, Anaheim, California.
- 1997 Consultant, Shurflo Engineering, Santa Ana, California.
- 1989-1992 Electrical Engineering Consultant, PRD, Inc., Dresher, Pennsylvania.
- 1985 Systems Consultant, Telebit Corporation, Cupertino, California.
- 1977-1978 Communications Engineer, Planning Organization of Iran, Tehran, Iran.
Member of a team working on the design of Iran's microwave and telephone networks.

FUNDED GRANTS

- 1991 CSUF School of Engineering Seed Grant, (sole PI).
- 1991 Hughes Faculty Research Grant, (sole PI).
- 1992 State Summer Stipend Grant, (sole PI).
- 1992 Hughes Faculty Research Grant, (sole PI).

- 1993 State Summer Stipend Grant, (sole PI).
- 1995 State Summer Stipend Grant, (sole PI).
- 1996 CSUF General Faculty Research Grant, (sole PI).
- 1997 Lockheed Martin Research Grant, (sole PI).
- 1998 CSUF Senior Faculty Research Grant, (sole PI).
- 1998-2001 Development of a pioneering B. S. degree program with emphasis in Pharmaceutical Engineering. The main sponsor of the project was Baxter Healthcare. Other financial supporters of the project were: The International Society of Pharmaceutical Engineers and Medical Device Professionals (ISPE), Alpha Therapeutics Corp., Watson Labs, B. Braun/McGaw, and Beckman Coulter. Co-PI from January 1998 to October 1998, and sole PI and Program Director from October 1998 until January 2001.
- 1999 CSUF General Faculty Research Grant, (sole PI).
- 1999 Lockheed Martin Research Grant, (sole PI).
- 1999 Lockheed Martin Research Grant, (sole PI).
- 2000 CSUF General Faculty Research Grant, (sole PI).

HONORS AND AWARDS

- 1989-90 Meritorious Performance and Professional Promise Award in the area of Professional Accomplishments, School of Engineering and Computer Science, California State University, Fullerton.
- 1991-92 Chair, Women in Science and Engineering (WISE), CSUF.
Chair, WISE Second Annual Conference on Diversity in Science and Engineering, May 1992.
- 1992-93 Outstanding Faculty Award for Excellence in Research, School of Engineering & Computer Science, California State University, Fullerton.
- 1993 Association for the Advancement of Medical Instrumentation (AAMI), Best Research Manuscript Award, May 9, 1993
- 1996 to Present Subject of Biographical Record in the *Marquis Who's Who in the West*, *Marquis Who's Who in America*, *Marquis Who's Who of American Women*,

Marquis who's who in Finance & Industry, Marquis Who's Who in Science and Engineering, and Marquis Who's Who in the World.

- 1995 NASA/ASEE Fellowship Award.
- 1995 NASA/ASEE Certificate of Recognition Award for Research Contributions.
- 1996 NASA/ASEE Fellowship Award.
- 1996 NASA/ASEE Certificate of Recognition Award for Research Contributions.
- 1998 Outstanding Recognition Award for Creative & Scholarly Activities, California State University, Fullerton.
- 2000-2001 CSUF Outstanding Faculty Recognition Awards for Scholarship.
- 2007 Keynote speaker, 18th Annual Conference of Graduate Women in Science, Chapman University, Orange, California, March 2007.
- 2009 Selected as the author of one of the best articles in medical informatics in 2009 By the International Medical Informatics Association, IMIA.
- 2013 to present Member of the Editorial Board, Biomed Research International, Emergency Medicine.
- 2015 to present Member of the Editorial Board, Pulmonology and Respiratory Medicine
- 2016 to present Member of the Editorial Board, Trends in Artificial Intelligence
- 2007 to 2018 Co-Chair, the International Conference on Computational Biology and several other conferences of the International Association of Engineers.
- 2016 Selected as a Fellow of the National Academy of Inventors (NAI)
- 2020 Selected as a Lifetime Fellow of the National Academy of Inventors (NAI)

MEMBERSHIP OF PROFESSIONAL SOCIETIES

- Fellow The Institution of Engineering and Technology (IET), formerly known as the Institution of Electrical Engineers (IEE)
- Lifetime Fellow National Academy of Inventors (NAI)

Fellow Institute for the Advancement of Engineering

National Life Sigma Delta Epsilon, Graduate Women in Science, Inc., (GWIS)
Member

SELECTED PUBLICATIONS

Patents to Date (in chronological order)

1. Tehrani, Fleur T., U.S. Patent No. 4909259, Method and Apparatus for Determining the Metabolic Rate Ratio, issued on March 21, 1990, utility type patent.
2. Tehrani, Fleur T., U.S. Patent No. 4986268, Method and Apparatus for Controlling an Artificial Respirator, issued on January 22, 1991, utility type patent.
3. Tehrani, Fleur T., Method and Apparatus for Controlling a Ventilator, New Zealand Patent Application No. 546941, granted January 2009.
4. Tehrani, Fleur T., Australian Patent No. 2004292955, Method and Apparatus for Controlling a Ventilator, granted on June 3, 2010.
5. Tehrani, Fleur T., U.S. Patent No. 7,802,571, Method and Apparatus for Controlling a Ventilator, issued on September 28, 2010, utility type patent.
6. Tehrani, Fleur T., Canadian Patent No. 2545570, Method and Apparatus for Controlling a Ventilator, issued on January 3, 2012.
7. Tehrani, Fleur T., Weaning and Decision Support System for Mechanical Ventilation, Australian Patent No. 2009200284, granted on October 29, 2012.
8. Tehrani, Fleur T., Weaning and Decision Support System for Mechanical Ventilation, US Patent No. 8695593, issued April 15, 2014.
9. Tehrani, Fleur T., Automatic Control System for Mechanical Ventilation for Active or Passive Subjects, US Patent No. 8701665, issued April 22, 2014.
10. Tehrani, Fleur T., Automatic Control System for Mechanical Ventilation for Active or Passive Subjects, UK Patent Serial No. GB2472116, granted on April 28, 2015.
11. Tehrani, Fleur T., Weaning and Decision Support System for Mechanical Ventilation, Canadian Patent No. 2651287, issued on November 24, 2015.
12. Tehrani, Fleur T., Automatic Control System for Mechanical Ventilation for Active or Passive Subjects, Canadian Patent No. 2769336, issued on March 8, 2016.

13. Tehrani, Fleur T., Automatic Control System for Mechanical Ventilation for Active or Passive Subjects, US Patent No. 9604021, issued on March 28, 2017.
14. Tehrani, Fleur T., U.S. Patent No. RE50219, Method and Apparatus for Controlling a Ventilator, issued on November 26, 2024, utility type patent.
15. Tehrani, Fleur T., System and Method for Facilitating Electronic Sales, US Patent Pending, Filed on August 5, 2022,

Commercialized Patents:

- The invention patented under US Patent # 4,909,259 is used worldwide. This patent covers the invention of metabolic rate monitors based on heart function including the monitors that are used by millions of people in exercise. This patent has been licensed to Oregon Scientific Inc., Veltec Sports Inc., Icon Health and Fitness, Inc., Sports Beat, Inc., and Fitness Club Warehouse, Inc.
- The inventions patented under US4986268, NZ546941, AUS2004292955, AUS2009200284, US7802571, CA2545570, US8695593, CA2651287, and RE50219 are used worldwide. The invention patented under US Patent # 4,986,268 has been licensed to Hamilton Medical Inc., and Hamilton Medical AG. The invention is an advanced ventilatory system that is used mainly in the Intensive Care and Constant Care settings in hospitals. The invention is marketed as “Adaptive Support Ventilation.”

Book Chapters

- 1- Tehrani, FT, FLEX: A new weaning and decision support system, , In: Applied Technologies in Pulmonary Medicine, Esquinas, AM, (Ed.), pp. 39-45, Karger, AG, Basel, 2010.
 - 2- Tehrani FT, Automatic control of mechanical ventilation technologies, In: Applied Technologies in Pulmonary Medicine, Esquinas, AM, (Ed.), pp. 28-34, Karger, AG, Basel, 2010.
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- 3- Tehrani, FT, Computerized decision support systems for mechanical ventilation, In: Efficient Decision Support Systems - Practice and Challenges in Biomedical Related Domain, IN-TECH publishers, pp. 227-238, 2011.
 - 4- Tehrani, FT, Intelligent Decision Support for Lung Ventilation, In: Azar AT Ed., Control Applications for Biomedical Engineering Systems,, Chapter 12, pp. 359-381, Academic Press, Elsevier, January 2020.

- 5- Tehrani, Fleur T., the Foreword on Azar AT Ed., Control Applications for Biomedical Engineering Systems, Academic Press, Elsevier, January 2020.
6. Tehrani, Fleur T., Lorentz Transformations and the Theory of Relativity: A Fundamental Concept, In: Fundamental Research and Application of Physical Science Vol. 4, 20 May 2023, Page 1-8, May 2023. <https://doi.org/10.9734/bpi/fraps/v4/4379C>

Books

1. “Another Spring (Bahari Degar),” a selection of Persian poems by Fleur Taher Tehrani (a non-technical publication), published in Iran by Entesharaat Ravanshenasi va Honar, 2012, (ISBN: 9786005772265).
2. “The Traveling Bird (Parandeh Mosafer),” a selection of Persian poems by Fleur Taher Tehrani (a non-technical publication), published by CreateSpace (amazon.com), 2014 (ISBN: 9781494921422)
3. “The Red Poppy (Shaghaayegh),” a selection of Persian poems by Fleur Taher Tehrani (a non-technical publication), published by CreateSpace (amazon.com), 2018, ISBN: 9781722373993.
4. “The Mirror (Ayeneh),” a selection of Persian poems by Fleur Taher Tehrani (a non-technical publication), published by Ingram Spark (amazon.com), 2024, ISBN: 9798330630950.

Selected Refereed and Peer Reviewed Publications (in reverse chronological order)

1. Fleur T. Tehrani, On De Broglie’s Wave-Particle Theory, *International Journal of Theoretical and Mathematical Physics*, 15(1), pp. 1-3, 2025.
2. Fleur T. Tehrani, James H. Roum, Adaptive Non-Invasive Ventilation Treatment for Sleep Apnea, *Healthcare Technology Letters*, vol. 11(5), pp. 283-288, Oct. 2024.
3. . Fleur T. Tehrani, On the Intellectual Property Rights of Academic Researchers: A Case Study, *Technology and Innovation*, Journal of the National Academy of Inventors, Vol. 23 (1), pp. 67-74, Oct. 2024.
4. Fleur T. Tehrani, James H. Roum, Non-Invasive Ventilation Treatment for Patients with Chronic Obstructive Pulmonary Disease, *Healthcare Technology Letters*, Vol. 10, issue 4, pp. 80-86, June 2023.
5. F. T., On Lorentz Transformations and the Theory of Relativity, *Journal of Modern Physics*, vol. 13, pp. 1341-1347, 2022.
6. F. T. Tehrani, Mathematical Model of the Human Respiratory System in Chronic Obstructive Pulmonary Disease, *Healthcare Technology Letters*, vol. 7, issue 6,

pp. 139–145, 2020.

7. Fleur T. Tehrani, How the US Courts View the Rights of Individual Patentees: A Case Study, *Technology and Innovation*, Journal of the National Academy of Inventors, vol. 21, pp. 229-236, 2020.
8. Fleur T. Tehrani, In regard to P. von Platen et al., “The Dawn of Physiological Closed-Loop Ventilation—A Review,” *Critical Care*, vol. 24, no. 326, pp. 1-2, 2020.
9. Fleur T. Tehrani, Solution to Polynomial Equations, A New Approach, *Applied Mathematics*, vol. 11, no. 2, pp. 53-66, Feb. 2020.
10. Fleur T. Tehrani, Computerized Decision Support for Differential Lung Ventilation., *Healthcare Technology Letters*, volume 6, no. 2, pp. 37-41, 2019.
11. Fleur T. Tehrani, A Simple Approach for Solving Cubic Equations, *The Mathematical Gazette*, volume 100, no. 548, pp. 225-232, 2016.
12. Tehrani, Fleur T., Abbasi, Soraya, “Continuous Positive Airway Pressure Treatment of Premature Infants; Application of a Computerized Decision Support System,” *Computers in Biology and Medicine*, volume 62, pp. 136-140, 2015.
13. Tehrani, FT, “A Computerized Decision Support System to Predict the Variations in the Cerebral Blood Flow of Mechanically Ventilated Infants,” *Computers in Biology and Medicine*, volume 43, pp. 1402-1406, 2013.
14. Tehrani, FT, “A Control System for Mechanical Ventilation of Active and Passive Subjects,” *Computer Methods and Programs in Biomedicine*, volume 110, pp.511-518, 2013.
15. Tehrani, FT, “A Closed-Loop System for Control of the Fraction of Inspired Oxygen and the Positive End-Expiratory Pressure in Mechanical Ventilation,” *Computers in Biology and Medicine*, volume 42, pp. 1150-1156, 2012.
16. Tehrani, FT, Abbasi, S., “A Model-Based Decision Support System for Critiquing Mechanical Ventilation Treatments,” *Journal of Clinical Monitoring and Computing*, volume 26, no. 3, pp. 207-215, 2012.
17. Tehrani, FT, Abbasi, S., “The Role of Physiological Models in Critiquing Mechanical Ventilation Treatments,” *Journal of Clinical Monitoring and Computing*, volume 25, no. 1, pp. 4-6, February 2011.
18. Tehrani, FT, “Critiquing Treatment and Setting Ventilatory Parameters by Using Physiological Modeling,” Proceedings of the International Conference of *IEEE Engineering in Medicine & Biology Society*, Volume 31, pp. 286-288, September

2009.

19. Tehrani, FT, Roum, JH, "Intelligent Decision Support Systems for Mechanical Ventilation," *IMIA Yearbook 2009*, (selected as one of the best articles in medical informatics in 2009)
20. Tehrani, FT., Abbasi, S., "Evaluation of a Computerized System for Mechanical Ventilation of Infants," *Journal of Clinical Monitoring and Computing*, Vol. 23, no. 2, pp. 93-104, 2009.
21. Tehrani, FT, "Automatic Control of Mechanical Ventilation. Part 2: The Existing Techniques and Future Trends," *Journal of Clinical Monitoring and Computing*, Vol. 22, no. 6, pp. 417-424, 2008.
22. Tehrani, FT, "Automatic Control of Mechanical Ventilation. Part 1: Theory and History of the Technology," *Journal of Clinical Monitoring and Computing*, Vol. 22, no. 6, pp. 409-415, 2008.
23. Tehrani, FT, Roum, JH, "Intelligent Decision Support Systems for Mechanical Ventilation," *Artificial Intelligence in Medicine*, Vol. 44, no. 3, pp. 171-182, 2008.
24. Tehrani, FT, Roum, JH, "FLEX: A New Computerized System for Mechanical Ventilation," *Journal of Clinical Monitoring and Computing*, Vol. 22, no. 2, pp. 121-130, 2008.
25. Tehrani, F. T., "A New Decision Support System for Mechanical Ventilation," Proceedings of the International Conference of *IEEE Engineering in Medicine & Biology Society*, vol. 29, pp. 3569-3572, August 2007 .
26. Tehrani, F. T., "The Origin of Adaptive Support Ventilation," *the International Journal of Artificial Organs*, Volume 28, no. 10, pp. 1051-1052, 2005.
27. Tehrani FT, Rogers M, Lo T, Malinowski T, Afuwape S, Lum M, Grundl B, Terry M., "A Dual Closed-Loop Control System for Mechanical Ventilation," *Journal of Clinical Monitoring and Computing*, Volume 18, no. 2, pp. 111-129, 2004.
28. Tehrani, F. T., "Function of Brainstem Neurons in Optimal Control of Respiratory Mechanics," *Biological Cybernetics*, Volume 89, No. 3, pp. 163-169, 2003.
29. T Lo, FT Tehrani, M Rogers, M Lum, T Malinowski, S Afuwape, M Terry, B Grundl, "A Dual Closed-Loop Controller for Mechanical Ventilation," *American Journal of Respiratory and Critical Care Medicine*, Volume 165, No. 8, Suppl., part 2, April 2002.

30. Tehrani FT, Rogers M, Lo T, Malinowski T, Afuwape S, Lum M, Grundl B, Terry M., "Closed-loop Control of the Inspired Fraction of Oxygen in Mechanical Ventilation," Journal of Clinical Monitoring and Computing, Volume 17, No. 6, pp. 367-376, 2002.
31. Tehrani, F. T., "A Control System for Oxygen Therapy of Premature Infants," Proceedings of the International Conference of IEEE Engineering in Medicine & Biology Society, Volume 23, October 2001.
32. Tehrani, F. T., "Automatic Control of Mechanical Ventilation and the Inspired Fraction of Oxygen in the Premature Infant: A Simulation Study," Proceedings of the International Conference of IEEE Engineering in Medicine & Biology Society, Volume 21, October 1999.
33. Tehrani, F. T. and Atwong, M. K., "California State University, Pioneer in a Baccalaureate Degree Program with Emphasis in Pharmaceutical Engineering," Pharmaceutical Engineering, Volume 19, pp. 76-80, September 1999 (invited paper).
34. Tehrani, F. T., "The Combined Effects of Closed-Loop Mechanical Ventilation and Automatic Control of Oxygen on Ventilatory Therapy: A Simulation Study," Proceedings of IASTED International Conference on Modelling & Simulation, pp. 145-149, September 1999.
35. Tehrani, F. T., "A Dual Automatic Control System for Ventilatory Treatment of Premature Infants," Proceedings of the World Multiconference on Systemics, Cybernetics and Informatics (SCI 99), Volume 8, pp. 232-236, August 1999 (invited paper).
36. Tehrani, F. T., "Optimal Control of Respiration in Exercise," Proceedings of The International Conference of IEEE Engineering in Medicine & Biology Society, Volume 20, No. 6, pp. 3211-3214, Oct. 1998.
37. Tehrani, F. T., "A Model Study of Periodic Breathing, Stability of Neonatal Respiratory System, and Causes of Sudden Infant Death Syndrome," Medical Engineering & Physics, Vol. 19, pp. 547-555, September 1997.
38. Tehrani, F.T., Roum, J. H., "Closed-loop Control of Artificial Respiration," Proceedings of WESCON/96, pp. 253-258, October 1996. (invited paper).
39. Tehrani, F. T., "Autoregulation of the Cerebral Blood Flow in Preterm Infants," Proceedings of the International Conference of IEEE Engineering in Medicine & Biology Society, Volume 17, pp. 635-636, September 1995.
40. Tehrani, F. T., "A Model Study of Periodic Breathing and Stability of the Respiratory System in Infants," Proceedings of the International Conference of

IEEE Engineering in Medicine & Biology Society, Volume 16, pp. 1027-1028, November 1994.

41. Tehrani, F.T., and Bazar, A.R., "A Feedback Controller for Supplemental Oxygen Treatment of Newborn Infants: A Simulation Study," Medical Engineering & Physics, Vol. 16, pp. 329-333, July 1994.
42. Tehrani, F.T., and Ford, R.E., "Phase Equalization of One and Two-Dimensional Recursive Filters," IEEE Transactions on Signal Processing, Vol. 41, No. 11, pp. 3193-3196, November 1993.
43. Tehrani, F. T., "Simulation and Analysis of Respiratory Disorders of the Premature Infant," Proceedings of the International Conference of IEEE Engineering in Medicine & Biology Society, Volume 15, pp. 530-531, October 1993.
44. Tehrani, F. T., "Mathematical Analysis and Computer Simulation of the Respiratory system in the Newborn Infant," IEEE Transactions on Biomedical Engineering, Vol. 40, No. 5, pp. 475-481, May 1993.
45. Tehrani, F.T., "Feedback Control of Arterial Oxygen Pressure in Artificial Ventilation," Invited Paper, (recipient of the Best Manuscript Award), Proceedings of AAMI 28th Annual Meeting and Exposition, Boston, MA, May 1993.
46. Tehrani, F.T., "An Automatic Control System for Patients Under Mechanical Ventilation," Proceedings of the International Conference on Engineering Applications of Mechanics, Tehran, Iran, June 1992.
47. Tehrani, F.T., and Ford, R.E., "A Numerical Approach to the Synthesis of Recursive Phase Equalizers," Proceedings of IEEE International Symposium on Circuits and Systems, Vol. 3, pp. 1503-1506, May 1992.
48. Tehrani, F.T., "A Microcomputer Oxygen Control System for Ventilatory Therapy," Annals of Biomedical Engineering, Vol. 20, pp. 547-558, 1992.
49. Tehrani, F.T., "A Model of the Respiratory System in the Newborn Infant," International Journal of Engineering, Vol. 4, Nos. 3&4, pp. 101-105, November 1991.
50. Tehrani, F.T., "Automatic Control of an Artificial Respirator," Proceedings of The International Conference of IEEE Engineering in Medicine & Biology Society, Volume 13, No. 4, pp. 1738-1739, November 1991.
51. Tehrani, F.T., and Bazar, A.R., "An Automatic Control System for Oxygen

- Therapy of Newborn Infants,” Proceedings of the International Conference of IEEE Engineering in Medicine & Biology Society, Volume 13, No. 5, pp. 2180-2182, November 1991.
52. Tehrani, F.T., “A Microcomputer Oxygen Controller for Artificial Respiration,” Proceedings of AMSE International Conference on Modeling and Simulation, Vol. 1, pp. 179-188, October 1991.
53. Tehrani, F. T., “Computer Simulation of the Respiratory Control System in the Newborn Infant,” Proceedings of the International Conference of IEEE Engineering in Medicine & Biology Society, Volume 12, No. 4, pp. 1848-1850, November 1990.
54. Tehrani, F. T., “A Monitor for the Metabolic Rate Ratio,” Proceedings of the International Conference of IEEE Engineering in Medicine & Biology Society, Volume 12, No. 4, pp. 1670-1671, November, 1990.
55. Tehrani, F. T. and Ford, R., “Group Delay Equalization of Multi-Dimensional Recursive Filters,” Proceedings of SPIE Visual Communications and Image Processing Conference, vol. 1360, pp. 1454-1462, October 1990.
56. Tehrani, F. T., and Ford, R., “Design of Multi-Dimensional Recursive Phase Equalizers,” Proceedings of the Canadian Conference on Electrical and Computer Engineering, pp. 61.2.1-61.2.3, September 1990.
57. Tehrani, F. T., “A Model of the Respiratory System in the Newborn Infant,” Proceedings of IASTED International Conference on Control and Modeling, pp. 360-363, July 1990.
58. Fincham, W. and Tehrani, F. T., “A Mathematical Model of the Human Respiratory system,” Journal of Biomedical Engineering, Volume 5, pp. 125-133, April 1983.
59. Fincham, W. and Tehrani, F. T., “On the Regulation of Cardiac Output and Cerebral Blood Flow,” Journal of Biomedical Engineering, Volume 5, pp. 73-75, January 1983.
60. Fincham, W. and Tehrani, F. T., “A Dynamic Model of the Respiratory System,” Computing in Medicine, Proceedings of the Fourth Strathclyde Bioengineering Seminar, Strathclyde, UK, Macmillan, pp. 347-355, 1982.

Other Selected Research Publications and Reports

1. Tehrani, F. T., "Investigation and Analysis of the Respiratory System in the Newborn and Causes of the Respiratory Distress Syndrome." *A report for a CSUF School of Engineering Seed Grant*, 1991.
2. Tehrani, F. T., "Development of an Adaptive Control System for Oxygen Treatment of Newborn Infants." *A report for a Hughes Faculty Research Grant*, 1991.
3. Tehrani, F. T., "A Computer Based Feedback Controller for Ventilatory Therapy." *A report for a State Summer Stipend Grant*, 1992.
4. Tehrani, F. T., "Design of Multi-Dimensional Recursive Filters for Data Communication Networks." *A report for a Hughes Faculty Research Grant*, 1992.
5. Tehrani, F.T. (Editor), "Proceedings of the Abstracts of *the Second Annual Conference on Diversity in Science and Engineering*," May 8, 1992, Fullerton, California.
6. Tehrani, F. T., "Development of a Microprocessor-Based Feedback Controller for Supplemental Oxygen Treatment of Preterm Neonates." *A report for a State Summer Stipend Grant*, 1993.
7. Tehrani, F. T., "An Investigation of Neonatal Respiratory System and Causes of Sudden Infant Death Syndrome." *A report for a State Summer Stipend Grant*, 1995.
8. Tehrani, FT, "Transfer of JPL Biomedical Technology to Industry," *Final Report, NASA/ASEE Summer Faculty Fellowship Program*, Jet Propulsion Laboratory, California Institute of Technology, Pasadena, California, 1995.
9. Tehrani, F. T., "Development of a Simulation Model of the Control of Cerebral Blood Flow in Preterm Infants." *A report for a CSUF General Faculty Research Grant*, 1996.
10. Tehrani, FT, "Transfer of JPL Biomedical Technology to Industry & Design of a Self-Calibrating Multi-Gas Sensor," *Final Report, NASA/ASEE Summer Faculty Fellowship Program*, Jet Propulsion Laboratory, California Institute of Technology, Pasadena, California, 1996.
11. Tehrani, F. T., "A Method for Design of Two-Dimensional IIR Digital Filters." *A report for a Lockheed Martin Research Grant*, 1997.
12. Tehrani, F. T., "Development of a New Method to Design IIR Digital Filters."

A report for a CSUF Senior Faculty Research Grant, 1998.

13. Tehrani, F. T., "Development of an Optimal Model to Control Respiration." A report for a CSUF General Faculty Research Grant, 1999.
14. Tehrani, F. T., "A New Efficient Technique to Design One and Two-Dimensional Recursive Digital Filters." A report for a CSUF General Faculty Research Grant, 2000.
15. Tehrani, Fleur "Closing the Loop in Mechanical Ventilation." Sixth Annual Respiratory Care Symposium, Loma Linda University Medical Center & Children's Hospital, September 2001.
16. Tehrani, F. T., and Shah, V., "Development of a Modular Design Technique for Infinite Impulse Response Digital Filters." A report for a Lockheed Martin Research Grant, 2002.
17. Tehrani, F. T., and Shah, V., "An Optimal Design Technique for Linear Phase Finite Impulse Response Digital Filters." A report for a Lockheed Martin Research Grant, 2002.

BOOK & JOURNAL REVIEWS

- "Digital Electronics Circuits," by K. Gopalan, Irwin Publishers.
- "Signals and Systems," by M. Nahvi, McGraw Hill.
- IEE Electronics Letters.
- IEEE Transactions on Control Systems Technology
- Physiological Measurements
- IEEE Transactions on Biomedical Engineering
- Annals of Biomedical Engineering
- IEEE Transactions on Signal Processing.
- IEEE Transactions on Education.
- International Journal of Engineering.
- IEE Proceedings on Vision, Image and Signal Processing.
- IET Communications
- Medical Engineering & Physics.
- Proceedings of IAENG International Conferences
- Artificial Intelligence in Medicine
- Journal of Clinical Monitoring and Computing
- Biomed Research International
- Journal of Applied Physiology

SUBJECTS TAUGHT

- Biomedical Engineering and Systems Analysis
- Linear Control Theory
- Systems Engineering
- Digital Control Systems
- Digital Electronics
- Analog Electronics
- Solid State Electronics
- Computer Circuit Design
- Microprocessor Programming
- Field Theory and Transmission Lines
- Engineering Circuit Analysis
- Pharmaceutical Engineering
- Digital Signal Processing
- Digital Filtering
- Engineering Economics