

## CURRICULUM VITAE

**NAME:** Subrata Saha, Ph.D.

**Wife:** Pamela S. Saha, M.D.

**TITLE:** Affiliate Professor, Department of Restorative Dentistry,  
Affiliate Instructor, Oral and Maxillofacial Surgery  
School of Dentistry, University of Washington  
1959 NE Pacific Street, Seattle, WA 98195

**Son:** Sunil Saha

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President, Founder, and Owner  
Biomedical Research and Services, Inc.  
14014 38<sup>th</sup> Ave. NE  
Seattle, WA 98125

### EDUCATION:

September 1969 - September 1973	Stanford University, Stanford, CA- 94025. Engineer degree in Applied Mechanics in 1971, Ph.D. in Applied Mechanics in 1974
January 1968 - May 1969	Tennessee Technological University, Cookeville, TN. 38501 M.S. in Engineering Mechanics 1969
September 1967 - December 1967	McGill University, Montreal, Canada. Extension courses in Structural Engineering
July 1959 - May 1963	Calcutta University, India B.E. in Civil Engineering in 1963, First Class
July 1957 - May 1959	Vidyasagar College, Calcutta University, India Intermediate Science (I.Sc.) in 1959, First Class

### HONORS AND AWARDS:

Keynote Speaker, Int. Cong. Biomed, Mat., Inno – 2020 (ICBMI - 2020)  
Fellow, Sigma Xi, The Scientific Research Honor Society (Inaugural Class) (2020)  
Conference Chair, 10<sup>th</sup> Int. Conf. Ethics in Biol. Eng. & Med. (ICEBEM 2020-2021)  
Keynote Speaker, 34<sup>th</sup> Southern Biomedical Engineering Conference, Charlotte, NC (2018)  
Distinguished Lecturer, IEEE Society on Social Implications of Technology (IEEE/SSIT) (2016-2018)  
Conference Chair, 9<sup>th</sup> Int. Conf. Ethics in Biol. Eng. & Med. (ICEBEM 2017), (2016-2018)  
Keynote Speaker, 33<sup>rd</sup> Southern Biomedical Engineering Conference, Gulfport, MS (2017)  
Keynote Speaker, 32<sup>nd</sup> Southern Biomedical Engineering Conference, Shreveport, LA (2016)  
Keynote Speaker, Mississippi Acad. Sci. 79<sup>th</sup> Ann. Meet, Hattiesburg, Mississippi (2015)  
Conference Chair, 8<sup>th</sup> Int. Conf. Ethics in Biol. Eng. & Med. (ICEBEM 2015), (2014-2015)  
Keynote Speaker, Int. Conf. on Advanced Materials and Technology, IEST, Shibpur, India (2014)  
Plenary Lecturer, Mississippi Acad. Sci. 78<sup>th</sup> Ann. Meet, Hattiesburg, Mississippi (2014)  
Keynote Speaker, 30<sup>th</sup> Southern Biomedical Eng. Conf., Gulfport, Mississippi. (2014)  
Fellow, New York Academy of Medicine (2014)  
Distinguished Alumnus Award, Bengal Engineering and Science University, Shibpur, India (2013)  
(Award was given by Honorable Pranab Mukherjee, President of India)  
Keynote Speaker, Int. Workshop on Recent Trends on Biomedical and Allied Engineering, Shibpur, India (2013)  
Keynote Speaker, Int. Conf. on Biologically Inspired Engineering, Nagpur, India (2013)  
Conference Chair, Seventh International Conference on Ethical Issues in Biomedical Engineering (2011 - 2013)  
Keynote Address, Indo-US Symposium on Preventing Road Crash Injury Through Vehicle Safety Design (2012)  
Honorary International Member, International Society for Craniofacial Research (2011)  
Conference Chair, Sixth International Conference on Ethical Issues in Biomedical Engineering (2009 - 2011)  
Editor-in-Chief, Ethics in Biology, Engineering and Medicine, An International Journal (2009 - Present)  
Keynote Speaker, 25<sup>th</sup> Southern Biomedical Engineering Conference, Miami (2009)  
Conference Chair, Fifth International Conference on Ethical Issues in Biomedical Engineering (2008-09)  
Keynote Speaker, 24<sup>th</sup> Southern Biomedical Engineering Conference, Univ. Texas El Paso (2008)

Editor-in-Chief, Journal of Long Term Effects of Medical Implants (2007-Present)  
 Life Time Biomechanics Dr. S. Pal Award (from National Biomechanics Society) (2006)  
 Foreign Editor, Indian Journal of Biomechanics (2006 - Present)  
 Conference Chair, Fourth International Conference on Ethical Issues in Biomedical Engineering (2006-07)  
 Fellow, Biomedical Engineering Soc. (Inaugural Class) (2005)  
 Conference Chair, Third International Conference on Ethical Issues in Biomedical Engineering (2004-05)  
 President, Society for Physical Regulation in Biology and Medicine (SPRBM), (2004)  
 Conference Chair, Biomedical Engineering in New York Conference (2003)  
 Conference Co-Chair, 22<sup>nd</sup> Southern Biomed. Eng. Conf. & Symp. Aortic Valve Sparing Surgery (2003)  
 Orthopaedic Implant Award (2002)  
 Conference Co-Chair, First International Conf. Medical Implants (2001-2002)  
 Dr. C. P. Sharma Award (2001)  
 Researcher of the Year, Sigma Xi, Clemson University Chapter, (2000)  
 Conference Chair, 18th South. Biomed. Eng. Conf. & 2nd Inter. Con. on Ethical Issues in Biomed. Eng. (1998-99)  
 Award for Faculty Excellence, Clemson University (1997)  
 Conference Chair, First Int. Conf. on Ethical Issues in Biomed. Eng. (1997)  
 Fellow, American Institute for Medical and Biological Engineering (AIMBE) (1996)  
 Excellence in Service Award, 14th Southern Biomed. Eng. Conf. (1995)  
 ESCS Engineering Achievement Award (1991)  
 C. William Hall Research Award in Biomedical Engineering (1987)  
 Senior Member, The Institute of Electrical and Electronics Engineers (1987)  
 Fellow, American Society of Mechanical Engineers (1986)  
 Conference Chairman, Fifth Southern Biomedical Engineering Conference (1986)  
 Research Board of Advisors, American Biographical Institute, Inc. (1986)  
 Engineering Achievement of the Year, ASME ARKLATEX Sec. (1985)  
 Fulbright Award (1982)  
 Conference Chairman, First Southern Biomedical Engineering Conference (1982)  
 Sigma Xi, The Scientific Research Society  
 Research Career Development Award (National Institutes of Health, 1978-1983)  
 U.S.-India Exchange of Scientist Award (National Science Foundation, 1978)  
 Conference Chairman, Fourth Annual New England Bioengineering Conference (1976)  
 Fellow of Branford College, Yale University (1976-1979)  
 National Research Council Postdoctoral Research Associateship (declined, 1973)

#### **MEMBER OF EDITORIAL BOARDS (Past and Present)**

American Journal of Biomedical Sciences (2009 – Present)  
 Annals of Biomedical Engineering (Section Editor on Biomaterials (1988-1993)  
 Biomaterials, Artificial Cells, and Immobilization Biotechnology  
 Biomaterials, Medical Devices and Artificial Organs (1982-1986)  
 Biotelemetry and Patient Monitoring  
 Critical Reviews in Biomedical Engineering (2008 - Present)  
 Critical Reviews in Physical and Rehabilitation Medicine (2012 – Present)  
 Ethics in Biology, Engineering and Medicine, An International Journal (Editor-in-Chief, 2010)  
 Indian Journal Biomechanics (Foreign Editor, 2007 – Present)  
 International Journal of Medical Implants and Devices (Assoc. Editor, 2005 – Present)  
 Journal of Applied Biomaterials (1990-2000)  
 Journal of Basic & Applied Biomedicine (1994)  
 Journal of Bioelectricity (1982-1987)  
 Journal of Bioengineering (1976-1978)  
 Journal of Biomedical Materials Research (1990-2008)  
 Journal of Forensic Biomechanics (2010 – Present)  
 Journal of Long Term Effects of Medical Implants (Assistant Editor); Aso. Editor-in-Chief  
 Journal of Oral Biology and Craniofacial Research (2011 – Present)  
 Medical Design and Material  
 Medical Engineering & Physics (1994 - 2005)  
 TM Journal (2001-2003)  
 Trends in Biomaterials and Artificial Organs (Associate Editor 1997-99; Member 2000)

## **MEMBERSHIP IN PROFESSIONAL SOCIETIES:**

American Academy of Mechanics  
American Academy of Orthopaedic Surgeons (AAOS) (Basic Science Associate Member, 2003- present)  
American Assoc. for the Adv. of Sci. (AAAS) (1986-1988, 1992-present)  
American Assoc. for Dental Research (AADR) (2007-present)  
American Association of University Professors (AAUP) (1998- 2001)  
American Ceramic Society (2002-2004)  
American Engineers for Social Responsibility (AESR) (1989-91)  
American Humanist Association (2010)  
American Institute of Ultrasound in Medicine (AIUM) (1986-1988)  
American Society for Testing and Materials (ASTM)  
American Society of Bioethics and Humanities (2014 – present)  
American Society of Biomechanics  
American Society of Civil Engineers (ASCE) (1985-1988)  
American Society of Engineering Education (ASEE) (1994-1995)  
American Society of Mechanical Engineers (ASME) (Fellow)  
Biomedical Engineering Society (BMES) (Fellow)  
Engineering in Medicine and Biology Society (IEEE/EMBS)  
European Society for Biomaterials (ESB) (1992)  
Institute of Electrical and Electronics Engineers (IEEE) (Senior Member, 1985-present)  
International Association for Dental Research (IADR) (2007 – present)  
International Society for Craniofacial Research (Honorary International Member, 2011 – Present)  
International Society of Medical Implants & Devices (2003-Present)  
New York Academy of Sciences (NYAS) (2007 – Present)  
Orthopaedic Research Society (ORS) (1976-present)  
Society for Biomaterials (SFB) (1975- present)  
Society for Biomaterials and Artificial Organs - India (Life Member)  
Society for Experimental Mechanics (SEM) (1972-1992) (2001-2003)  
Society of Engineering Science (1994 -1995)  
The National Institute of Ceramic Engineers (2003-2004)  
New York Academy of Medicine (2014-2015) (Fellow)  
Academic Orthopaedic Consortium (AOC) (2021-present)

## **PROFESSIONAL EXPERIENCE:**

2020 – Present	Distinguished Adjunct Professor, Saveetha Institute of Medical and Technical Sciences, Chennai, India
2019 - Present	Volunteer Faculty, Department of Biomedical Engineering, Florida International University, Miami, FL.
2017 – 2018	Visting Research Professor, Department of Biomedical Engineering, Florida International University Miami, FL.
2017 – Present	Affiliate Professor, Department of Restorative Dentistry, School of Dentistry, University of Washington Seattle, WA.
2017 – Present	Affiliate Instructor, Department of Oral and Maxillofacial Surgery, School of Dentistry, University of Washington, Seattle, WA.
2013 – October 2016	Research Professor, School of Public Health, SUNY Downstate Medical Center (Voluntary faculty),Brooklyn, NY.
2009 – September 2016	Director, Biomedical Engineering Program, College of Graduate Studies, SUNY Downstate Medical Center. Brooklyn, NY.
2010 – 2012	Research Professor, Dept. of Neurosurgery, SUNY Downstate Medical Center. Brooklyn, NY.
2006 – October 2016	Research Professor, Dept. of Physiology and Pharmacology, SUNY Downstate Medical Center. Brooklyn, NY.

September 2005 – October 2016	Research Professor & Director of Musculoskeletal Research, Dept. Orthopaedic Surgery and Rehabilitation Medicine, SUNY Downstate Medical Center, Brooklyn, NY- 11203.
2006 – October 2016	Faculty, College of Graduate Studies, SUNY Downstate Med. Ctr., Brooklyn, NY.
August 2005 – Present	President, Biomedical Research & Services Inc., Seattle, WA.
September 2001 – August 2005	Professor of Biomaterials, School of Engineering, Alfred University, Alfred, NY.
July 1996 – June 2001	Director, Bioengineering Alliance of South Carolina, Clemson, SC. Professor, Dept. Bioengineering, Clemson University, Clemson, SC.
July 1997 - June 2001	Professor, Materials Sci. and Eng. Program, Clemson University, Clemson, SC.
1997 - 2000	Adjunct Faculty, Clemson University/Greenville Hospital System Co-Op Program. Clemson, SC.
1997 - 2000	Adjunct Faculty, Medical University of South Carolina, Charleston, SC
October 1995 - June 1996	Visting Professor, School of Engineering, University of California, Riverside, California
October 1995 - June 1996	Research Professor, Dept. of Restorative Dentistry, Sch. of Dentistry, Loma Linda University, Loma Linda, California
July 1991 - September 1995	Professor and Vice Chairman for Research, Dept. of Orthopaedic Surgery, Loma Linda University Medical Center, Loma Linda, California
January 1992 - June 1996	Professor, Dept of Anatomy, Loma Linda Univ., Loma Linda, California
January 1979 - December 1991	Associate Professor and Coordinator of Bioengineering, 1979 - 1984; Professor and Coordinator of Bioengineering, 1984 - 1991, Dept. of Orthopaedic Surgery, LSU School of Medicine, Shreveport, Louisiana
July 1980 - July 1991	Associate Professor, 1980-1984, Professor, 1984-1991, Dept. of Physiology and Biophysics, LSU Sch. of Medicine
July 1980 - 1991	Member, School of Graduate Studies, LSU Medical Center
July 1979 - 1991	Professor, affiliated faculty, Dept. of Biomedical Engineering, Louisiana Tech University
October 1987 - 1994	Graduate Faculty, Louisiana Tech University
July 1974 - June 1979	Assistant Professor, Dept. of Engineering and Applied Science, Yale University
1976 - 1977	Director, Yale University Summer Research Program for College Juniors
September 1973 - June 1974	Research Associate, Sect. of Orthopaedic Surgery, Yale University School of Medicine
September 1971 - September 1973	Teaching & Research Assistant, Dept. of Applied Mechanics, Stanford University
Summer 1971	Design Engineer, Advanced Composite Design Group, General Dynamics, San Diego
September 1969 - June 1971	Teaching & Research Assistant, Dept. of Aeronautics & Astronautics, Stanford University
Summer 1969	Engineer, Mid-South Engineering Co., Knoxville, Tennessee.
January 1969 - May 1969	Teaching & Research Assistant, Dept. of Eng. Science and Eng. Mechanics, Tennessee Technological University
August 1967 - December 1967	Engineer, Arsenault and Arcant Co., Montreal, Canada

March 1966 - July 1967	Assistant Director, Central Water Power Commission, Govt. of India
January 1964 - February 1966	Assistant Project Engineer, Guest, Keen & Williams Ltd., Calcutta, India
September 1963 - December 1963	Design Engineer, Military Engineering Service, Calcutta, India
June 1963 - September 1963	Engineer Trainee, Consultant Group, Calcutta, India

#### **PROFESSIONAL ACTIVITIES (SINCE 1975):**

Member (1975 - 1978)	Council of the Alliance for Engineering in Medicine and Biology (AEMB), representative of Soc. Exp. Stress Analysis (SESA)
Member (1976 – 1979, 1983-1996)	Biomechanics Committee, Am. Soc. Mech. Engrs. (ASME)
Chairman (1977 - 1978)	Vice-Chairman (1976-1977), Secretary (1975-1976), Soc. for Exp. Stress Analysis, Conn. Section (SESA)
Chairman (1976 - 1978)	Ad Hoc Committee to develop proposal to NSF, Soc. for Exp. Stress Analysis
Member (1977 - 1985)	Technical Committee on Fracture Mechanics, SESA
Chairman (1975 - 1976)	Program Committee, 4th Ann. New England Bioengineering Conf., Yale University
Member (1976 - 1977)	Program Committee, 5th Ann. New England Bioengineering Conference held at University of New Hampshire.
Member (1976 - 1978)	Program Committee, 6th Ann. New England Bioengineering Conference held at the University of Rhode Island
Member (1976 - 1978)	Project Advisory Committee (AEMB)
Member (1976 - 1983)	Steering Committee, Northeast Bioengineering Conference
Connecticut Representative (1976 - 1980)	Executive Committee, Bengal Engineering College, Alumni Association
Member (1978 – 1981)	Intersociety Liaison Committee, Soc. Exp. Stress Analysis
Member (1979 – 1981)	Program Committee, Society for Biomaterials
Instructor (1980)	Workshop on “Extreme Environment Strain Gages,” 4 <sup>th</sup> Int. Cong. on Exp. Mech., Boston
Chairman (1981 - 1982)	Program Committee and Local Arrangements Committee, First Southern Biomed. Eng. Conf.
Member (1980 - 1983)	Standards Committee, Society for Biomaterials
Member (1980 - 1983)	Standards Committee, Society for Biomaterials.
Member (1981 - 1982) (1983 - 1984)	Nominating Committee, Soc. for Biomaterials
Member (1981 - 1986)	Biomechanics Committee, Am. Soc. Civil Engrs
Member (1981)	Program Committee, 3rd Ann. Conf. of the Eng. in Med. & Biol. Society of IEEE
Chairman (1981 - 1998)	Steering Committee, Southern Biomedical Engineering Conference.
President (1998 - present)	Board of Directors, Southern Biomedical Engineering Conference

Organizing Secretary (1983 - 1984)	International Symposia - cum - Workshop on Bioengineering, held in Calcutta, India.
Member (1984 - 1989)	Education and Public Affairs Committee, Biomedical Eng. Soc.
Chairman (1985)	Judges of the Inst. Elect. Electronics Eng., Inc., International Science and Engineering Fair
Chairman (1986)	Program and Local Arrangement Committees, Fifth Southern Biomedical Engineering Conference
Member (1987 - 1988)	Program Committee, Biomedical Engineering Society.
Member (1987 - 1990)	Long-range Planning Committee, Sigma Xi (Shreveport Chapter)
Member (1980 - 1992)	Health Care Technology Policy Committee, IEEE.
Member (1987 - 1988)	Scientific Program Committee (Biomedical Engineering), 1988 World Congress on Medical Physics and Biomedical Engineering
Member (1988 - 1993)	Committee on Ethics & Professional Responsibility, IEEE/Eng. in Med. and Biol. Soc.
Member (1989 -1995)	ASTM Committee for Spinal Implants
Member (1989 - present)	International Liaison Committee (representing Society for Biomaterials and Artificial Organs, India).
President (1990 - 1991)	Sigma Xi, Shreveport Chapter.
Discussor (1990)	Hunter Honors Colloquium in Bioengineering on Ethical Issues at the Interface between Engineering and Medicine at Clemson Univ.
Member (1992 - 1995)	Long Range Planning Committee, Society for Biomaterials
Member (1992 - 1994)	Committee on Ethics & Professional Responsibility & Animal Welfare, Society for Biomaterials
Mini-Symp Chair (1992-1993)	15th Ann. Conf. IEEE Eng. Med. Biol. Society. San Diego, CA
Publicity Chair (1992-1993)	15th Ann. Int. Conf. IEEE/Eng. Med. Biol. Soc., San Diego, CA
Program Track Chair (1993)	15th Ann. Int. Conf. IEEE/Eng. Med. Biol. Soc., Diego, CA Education, Ethics, Economics, Liability and Responsibility
Chairman (1993 - 1997)	Ethics and Professional Responsibility Committee, IEEE/Eng. Med. and Bio. Soc.
Program Track Chair (1994)	16th Ann. Int. Conf. IEEE/Eng. Med. Biol. Soc., Baltimore, MD
Workshop Organizer (1994)	16th Ann. Int. Conf., IEEE/Eng. Med. and Bio. Soc., Baltimore, MD
Program Track Chair (1994)	16th Ann. Int. Conf., IEEE/Eng. Med. and Bio. Soc., Baltimore, MD
Member (1994 - 95)	Program Committee, 15th Ann. Meet. Soc. Physical Regulation in Biol. & Med.
Member (1995 - 96)	FDA Reform Task Force, Am. Inst. Med. Biol. Eng. (AIMBE)
Chairman (1995 - 96)	Program Committee, Soc. Phy. Reg. in Biol & Med
Member (1996 - 97)	Nominating Committee, Am. Soc. Biomaterials
Member (1996 - 99)	Biomaterials Committee, Am. Soc. Mechan. Eng., Bioeng. Division
Chairman (1996 - 97)	Local Program Committee, 1st Int. Conf. On Ethical Issues in Biomedical Engineering

Chairman (1996 - 97)	International Program Committee, 1st Int. Conf. On Ethical Issues in Biomedical Engineering
Member (1997)	Governing Board, Second World Congress for Electricity and Magnetism in Biology and Medicine
Member (1997 - 1999)	Scientific Committee, 11th Nordic-Baltic Conf. On Biomedical Engineering, NBC 99
Track Chair (1997-1998)	IEEE/Eng. Med. Biol. Soc. Meet., Hong Kong, 1998
Member (1997-98)	Program Committee, 17th Southern Biomedical Eng. Conf.
Chair (1998-99)	Int. Prog. Committee, 2nd Int. Conf. Ethic. Iss. Bioeng.
Judge (1999)	4 <sup>th</sup> Ann. Gr. Student Res. Forum, Clemson University
Chair (1998-99)	Prog. Committee, 18th Southern Biomedical Eng. Conf.
Member (1999- 2001)	Advisory Board, South Carolina Biotechnology Association
Vice-Chairman (1999- 2001)	Biomaterials Committee, Am. Soc. Mech. Engrs
Chairman of Judges (2000)	5 <sup>th</sup> Ann. Gr. Student Res. Forum, Clemson University
Vice-President (1999-2000), President (2000-2001)	Sigma Xi, Clemson University Chapter
Member (2000 – 2004)	Council of Societies, AIMBE (ASME representative)
Member (2002 – Present)	IEEE-USA Medical Technology Policy Committee (MTPC)
Member (2003 – 2004)	Bioterrorism Subcommittee of MTPC, IEEE-USA
Member (2003 – 2004)	Geriatric Care Working Group of MTPC, IEEE-USA
Chair (2004 – 2005)	Patient Safety Subcommittee of MTPC, IEEE-USA
Chair (2003 – 2004)	SWAT on Med.Device Liability, Health Ind. Eco. & Patient Empowerment, AIMBE
Chair (2003 – 2006)	Ethics & Professional Responsibility Comm., IEEE/ Eng/ Med. Biol. Soc.
Member (2006 – Present)	Critical Infrasutucture Protection Comm., IEEE USA
Chair (2007 – 2009)	Local Program Committee, 5 <sup>th</sup> Intl. Conf. on Ethical Issue Biomed. Eng.
Secretary (2008)	Sigma Xi Chapter, SUNY Downstate Medical Center
President (2009 - 2012)	Sigma Xi Chapter, SUNY Downstate Medical Center
Chair (2009 – Pressent)	Ethics Committee, Int. Fed. Med. Biol. Eng. (IFMBE)
Member (2009 - 2010)	International Advisory Committee, International Conf. on Investment Casting (ICIC – 2010), Durgaper, West Bengal, India, Jan. 22-24, 2010
Member (2009 – 2010)	Organizaing Comm. 19 <sup>th</sup> Ann. Event. of Am. Inst. Med. Biol. Eng. (AIMBE)
Member (2010 – 2013)	Ethics Committee, Am. Assso. Dent. Res. (AADR)
Chair (2010 – Present)	Aging Subcommittee, MTPC, IEEE – USA

Member (2010 – 2012)	Development Committee, Sigma Xi
Member (2010 – Present)	Ethics Committee, Biomedical Eng. Soc. (BMES)
Co-Chair (2011 – Present)	International Committee, Am. Inst. Med. Bio. Eng. (AIMBE)
Member (2011 – Present)	Committee on Underrepresented Minorities (CURM), Am. Inst. Med. Bio. Eng. (AIMBE)
Member (2011)	Scientific Committee, Symp. on Innovations in Biomed. Eng. & Tech., Shobhit Univ., Meerut, India, Aug. 22, 2011, Shobhit University, India
Session organizer and Abstract Reviewer	<i>Ann. Meets. Soc. Biomaterials</i> , Orlando, FL (2011)
Member (2011 – 2012)	Int. Adv. Committee. Int. Conf. on Biomaterials, Implant Devices and Tissue Eng., Rajalakshmi Eng. College, Chennai, India, Jan. 6-8, 2012
Theme Chair (2011 – 2012)	World Congress on Med. Physics & Biomed. Eng., Beijing, May 25-31, 2012
Chair, (2012 – 2013)	Ethics Committee, American Association of Dental Research (AADR)
Member (2011 – 2012)	Deiversity Committee, Sigma Xi
Chair (2012 – Present)	Development Committee, Sigma Xi
Member (2012 – 2013)	Committee on Committees, Sigma Xi
Vice Chair (2013 – 2014)	IEEE NY Eng. Med. Biol. Soc. (EMBS) Chapter
Member (2015-2017)	Ethics Committee, International Association of Dental Research (IADR)
Chair (2015-2018)	Ethics Committee, Biomedical Engineering Society (BMES)
Member (2015-2018)	Global Citizen Safety and Security Working Group (IFMBE)
Track Chair (2016)	Biomedical Education and Ethics, 32 <sup>nd</sup> Southern Biomed. Eng. Conf., Shreveport, LA
Member (2016-2018)	Program Committee, NANOMED Houston 2018
Member (2016-2018)	Scientific Advisory Board Executive Committee, NANOMED Houston 2018
Member (2017-2018)	Program and Organizing Committee, 34 <sup>th</sup> Southern Biomedical Engineering Conference, Charlotte, NC (2018)
Track Chair (2017-2018)	Biomedical Education and Ethics, 34 <sup>th</sup> Southern Biomedical Engineering Conference, Charlotte, NC (2018)
Member (2018)	Program Committee, Sigma Xi Annual Meeting and Student Research Conference, October 25-28, 2018
Member (2018-2021)	Nominating Committee, Sigma Xi
Chair (2019-2022)	Bioethics Committee, International Federation of Medical and Biological Engineering (IFMBE)
Chair (2019-2021)	Program Committee, 10 <sup>th</sup> International Conference on Ethics in Biology, Engineering, and Medicine
President (2020-President)	Sigma Xi Chapter, University of Washington

**BOARD MEMBERSHIPS:**

Vice President (2020 – Present)	Samaritan's Healing Hands (Nonprofit Organization)
Vice President (2011 - 2015)	Global Alumni Association of Bengal Engineering & Science University (GAABESU) USA Foundation
Vice Chairman (2003 – 2010)	Board of Directors, TMJ Implant Inc.
Member (2004 – 2005) 018	Technical Board of Advisors, Biomimetic Connections, Inc
Member (2004 – 2006)	Board of Directors, Allegany Rehabilitation Associates
Member (2006 – 2007)	Board of Advisors, BMET Corp.
Member (2015-2017)	Board of Governors, IEEE Society on Social Implications of Technology (SSIT)

**COURSES TAUGHT:**

- 1) Mechanics of Materials
- 2) Theory of Elasticity
- 3) Mechanics of Deformable Media
- 4) Experimental Stress Analysis
- 5) Theory of Structures
- 6) Biomechanics
- 7) Dental Bioengineering
- 8) Strength of Materials Laboratory
- 9) Orthopaedic Engineering and Pathology
- 10) Bioinstrumentation
- 11) Ethics in Bioengineering and Medicine
- 12) Biomedical Design
- 13) Internship
- 14) Introduction to Bioengineering
- 15) Introduction to Biomaterials
- 16) Advanced Biomedical Materials Engineering
- 17) Team Project I
- 18) Team Project II
- 19) Advances in Medical Technology and their Ethical Challenges (Honors Symp.)
- 20) Rehabilitation Engineering
- 21) Ethics & Responsibility in Research (member of a team)
- 22) Biomechanics and Biomaterials in Orthopaedics
- 23) Biomedical Engineering Seminar
- 24) Ethics Journal Club

**REVIEWER:**

Reviewer for the following journals: *Applied Mechanics Reviews*; *J. of Bioengineering*; *J. of Applied Mechanics*; *J. of Biomechanics*; *J. of Biomechanical Engineering*; *Biomaterials*, *J. Forensic Biomechanics*, *Medical Devices and Artificial Organs*; *Int. J. of Solids and Structures*; *Biomaterials*; *J. Biomed. Mater. Res.*; *J. of Orthop. Res.*; *IEEE Trans. Biomed. Eng.*; *Med. Biol. Eng. & Comp.*; *Ultrasound in Med. & Biol.*; *J. App. Biomat.*; *J. Long Term Effects Med. Implants*, and *Med. Eng. & Physics*. Reviewer of book proposals for CRC Press, John Wiley & Co., and Cambridge University Press.

Member (1985)	Metabolic Pathology (AHR-BL) Special Study Section (SBIR), NIH
Consultant (Special Reviewer) (1985)	Orthopaedics and Musculoskeletal Study Section, NIH
Member (April, 1986)	Special SBIR Study Section (Surgery & Bioengineering Study Sec.), NIH

Member (December 1986)	Orthopaedics Small Business Innovation Research (SBIR) Study Section, NIH
Member (April 1987)	Study Section (Orthopaedics and Small Business Innovation Research, NIH
Reviewer (1987 - 1990)	Florida High Technology and Industry Council Research Proposals
Member (1988)	Bioengineering and SBIR Research Review Panel National Science Foundation
Chairman (1988)	Special Study Section for AREA Grant, NIH
Member (1991)	Biomedical Engineering and Aiding the Disabled grant review panel, National Science Foundation
Member (1992)	Minority Biomedical Research Support (MBRS) review panel, National Institute of Health
Member (1993)	Materials Panel, Biomedical Engineering, National Science Foundation
Member (1994)	Special Study Section (for SBIR grants), NIH
Member (1994)	Multidisciplinary Special Emphasis Panel, NIH
Member (2000)	IGERT Proposal Review Panel, NSF
Ad Hoc member (2011, 2012)	Alumni Fund Summer Research Program for 1 <sup>st</sup> Year Medical Students, SUNY Downstate Medical Center
Member (2012-2015)	Robert F. Furchgott Soc. Committee for Fellows and Students' Award

**TECHNICAL SESSIONS CHAIRED AT NATIONAL & INTERNATIONAL MEETINGS (\*also organized):**

Cardiology and Hemodynamics - *3rd Annual New England Bioengineering Conference*, Tufts University, Boston, MA (1975)

Biomaterials I\* - *Fourth New England Bioengineering Conference*, Yale University, New Haven, CT (1976)

Biomaterials - *29th Annual Conference on Engineering in Medicine and Biology*, Boston, MA (1976)

Cartilage and Bone Mechanics - *1977 Biomechanics Symposium*, Am. Soc. Mech. Engrs., Yale University, New Haven, CT (1977)

Respiration, Transport and Diffusion - *1977 Biomechanics Symposium*, Am. Soc. Mech. Engrs., Yale Univ., New Haven, CT (Co-Chairman) 1977

Biomaterials - *Fifth New England Bioengineering Conference*, University of New Hampshire, Durham, NH (1977)

Orthopaedic Applications of Bioelectricity\* - *Thirteenth Annual Meeting of the Advancement of Medical Instrumentation (AAMI)*, Washington, DC (1978)

Biomechanics - *1978 Spring Meeting of the Society for Experimental Stress Analysis*, Wichita, KS (Co-Chairman)

Biomechanics - *1978 Spring Meeting of the Society for Experimental Stress Analysis*, Wichita, KS (Co-Chairman)

Biomechanics - *Sixth New England Bioengineering Conference*, University of Rhode Island Kingston, RI (1978)

Fracture Healing and Cements - *Seventh New England Bioengineering Conference*, Rensselaer Polytechnic Institute, Troy, NY (1979) Co-Chairman

Biomechanics\* - *Fourth SESA International Congress on Experimental Mechanics*, Boston, MA (1980)

Tissue Mechanics - *9th Annual Northeast Bioengineering Conference*, Rutgers University, NJ (March, 1981) Co-Chairman

Symposium on the Mechanical Properties of Bone III: Determination of the Mechanical Properties- *Biomechanics Symposium*, ASME/ASCE, Boulder, CO (Co-Chairman)

Orthopaedics and Biomechanics\* - *Annual Conference of the Engineering in Medicine and Biology Society of the IEEE*, Houston, TX (1981)

Orthopaedics Device Technology and Implantable Power Sources - *AAMI 17th Annual Meeting*, May 1982, San Francisco, CA (Co-Chairman)

Plenary Session - *First Southern Biomedical Eng. Conf.*, Shreveport, LA (1982)

Bioelectricity - *Second Southern Biomedical Eng. Conf.*, San Antonio, TX (1983)

Medical Ethics\* - *Third Southern Biomedical Eng. Conf.*, Birmingham, AL (1984)

Bone Cement - *11th Ann. Meeting Soc. for Biomaterials*, San Diego, CA (1985)

Biomaterials - *IEEE/Engineering in Medicine and Biology Soc. 9th Annual Conf.*, Boston, MA (Nov 1987)

Biomechanics\* - *Spring Conf. on Exp. Mech. (SEM)*, Las Vegas, NV (1985)

Joint Behavior - *1985 Biomechanics Symposium*, ASME, Albuquerque, NM (1985)

Soft Tissue Mechanics - *Fourth Southern Biomed. Eng. Conf.*, Jackson, MS (1985)

Plenary Session - *Fifth Southern Biomed. Eng. Conference*, Shreveport, LA (1986)

Metal Ion Release - *12th Annual Meet. Soc. for Biomat.*, Minneapolis, MN (1986)

Alternative Therapies - *IEEE Eng. in Med. and Biol. Soc. 8th Ann. Conference*, Dallas/Fort Worth, TX (1986)

Ethical Issues in Biomed. Eng.\* - *Sixth Southern Biomed. Eng. Conf.*, Dallas, TX (1986)

Electrical Stimulation of Healing - *Sixth Southern Biomed. Eng. Conf.*, Dallas, TX, Co-Chairman, (1987)

Poster Session - *13th Ann. Meet. Soc. for Biomaterials*, NY (1987)

Mechanical Properties of Bone: Stress Analysis - *11th Ann. Meeting Am. Soc. Biomechanics Meeting*, Davis, CA (1987)

Bone Studies and Drug Effects - *9th Ann. Meet. IEEE/Eng. Med. Biol. Soc.*, Boston, MA (1987)

Biocompatibility and Performance Evaluation - *9th Ann. Meet. IEEE/Eng. Med. Biol. Soc.*, Boston, MA (1987)

Dental Biomechanics - *Third World Biomaterials Congress*, Kyoto, Japan (1988)

Ethical Issues in Health Care Technology\* - *World Congress on Med. Phys. & Biomed. Eng.* (1988)

Bone Remodeling and Mechanical and Metabolic Factors\* - *World Congress on Med. Phys. & Biomed. Eng.*, San Antonio, TX (1988)

Bone Mechanics\* - *World Congress on Med. Phys. & Biomed. Eng.*, San Antonio, TX (1988)

Orthopaedic Bioengineering\* - *World Congress on Med. Phys. & Biomed. Eng.*, San Antonio, TX (1988)

Orthopaedic Implants\* - *World Congress on Med. Phys. & Biomed. Eng.*, San Antonio, TX (1988)

Imaging: Cost Effectiveness and Clinical Benefits\* - *IEEE Eng. Med. Biol. Soc. 10th Ann. Int. Conf.*, New Orleans, LA (1988)

Ethics and Professionalism in Clinical Engineering\* - *AAMI 24th Ann. Meet. & Exp.*, St. Louis, MO (1989)

Technology Assessment and Ethical Issues\* - *IEEE Eng. and Med. Biol. Soc. Ann. Int. Conf.*, Seattle, WA (1989)

Ethical Issues in Biomechanics\* - *First World Congress on Biomechanics*, San Diego, CA (1990)

Drug Release Materials - *Ann. Meet. Soc. Biomaterials*, Charleston, SC (1990)

Bone #1 - *14th Ann. Meet. Am. Soc. Biomech.*, Miami, FL (1990)

Joint Mechanics: Biomechanics of Extremities\* - *1991 Biomech. Symp.*, ASME, Columbus (1991)

Joint Mechanics: Knee Mechanics \* - *1991 Biomechanics Symposium*, ASME, Columbus, OH (1991)

Symposium on Bone Mechanics: Bone Remodeling\* - *ASME Winter Annual Meeting*, Atlanta, GA (1991)

Ethical Issues in Biomaterials Research and Practice\* - *Fourth World Biomaterials Congress*, ICC, Berlin, Germany (1992)

Student Papers I - *11th Southern Biomedical Engineering Conference*, Memphis, TN (1992)

Artificial Organs\* - *14th Annual International Conference IEEE Eng. in Med. and Biol. Society*, Paris (1992)

Bone Mechanics - *39th Annual Meeting Orthopaedic Research Society*, San Francisco, CA (1993)

Orthopaedic Implants - *6th National Conference on Biomaterials Artificial Organs*, Calcutta, India (1993)

Invited Talks - *6th National Conference on Biomaterials*, Calcutta, India (1993)

Orthopaedic Biomechanics - *12th Southern Biomedical Engr. Conf.*, New Orleans, LA (1993)

Microstructural Modeling II - Bone, *1993 ASME/AI Ch E/ASCE Summer Bioengineering Conference*, Breckenridge, CO (1993)

Mini-Symposium: Ethical and Legal Aspects of BME\* - *15th Ann. Int. Conf. IEEE Eng. Med. Biol. Soc.*, San Diego, CA (1993)

BME Education\* - *15th Ann. Int. Conf. IEEE Eng. Med. Biol. Soc.*, San Diego, CA (1993)

Impact of FDA Regulations in Biomedical Industry\* - *13th Southern Biomed. Eng. Conf.*, Washington, DC (1994)

Orthopaedic Biomechanics III - *13th Southern Biomed. Eng. Conf.*, Washington, DC (1994)

Orthopaedic Biomechanics II - *31st Ann. Meet. Soc. Eng. Scie.*, College Station, TX (1994)

Workshop: Ethical and Legal Issues in Biomed. Eng.\* - *16th Ann. Int. Conf. IEEE Eng. Med. Biol. Soc.*, Baltimore, MD (1994)

Symposium on Federal Regulation of Medical Devices for the Nineties\* - *16th Ann. Int. Conf. IEEE Eng. Med. Biol. Soc.*, Baltimore, MD (1994)

Applications of Mechanics in Dentistry - *ASME Int. Mech. Eng. Cong. & Exp.*, Chicago, IL (1994)

Biomechanics I - *14th Southern Biomedical Eng. Conf.*, Shreveport, LA (1995)

Current Concepts - *14th Southern Biomedical Eng. Conf.*, Shreveport, LA (1995)

FDA Regulation and Future of Biomedical Industry\*- *15 South. Biom. Eng. Con.*, Toledo, OH (1996)

Rapid Prototyping and Custom Implants in Medicine\*- *15 South. Bio. Eng. Conf.*, Toledo, OH (1996)

Osteoarthritis: Physical Factors in Bone and Cartilage Remodeling and Disease\* - *16th Ann. Meet. Soc. Phy. Reg. Biol. Med.*, Chicago (1996)

Mechanism of Cellular Mechanochemical Signal Transduction\*- *16th Ann. Meet. Soc. Phy. Reg. Biol. Med.*, Chicago (1996)

Rapid Prototyping, Robotic Applications\*-*1997 Bioengineering Conference, American Soc. Mech. Engrs*, Oregon, (1997)

Interfaces Correlations Among In Vitro, In Vivo Models and Human Investigations of Surgical Implants - *16th Southern Biome. Eng. Conf.*, Biloxi, Mississippi, (1997)

Gait - *16th Southern Biome. Eng. Conf.*, Biloxi, Mississippi, (1997)

Plenary Sessions I & II, *First Int. Conf. on Ethical Issues in Biom. Eng.\**, Clemson, SC (1997)

Orthopaedics Biomaterials-*Int. Mech. Eng. Cong. & Exp.*, Dallas, TX (1997)

Education and Ethics\*-*20th Ann. Int. Conf. IEEE Eng. Med. Biol. Soc.*, Hong Kong, (1998)

Plenary Session I,\* *18th Southern Biomedical Engineering Conference and the 2nd International Conference on Ethical Issues in Biomedical Engineering*, Clemson, SC (1999)

Dentistry and Oral Surgery,\* *18th Southern Biomedical Engineering Conference and the 2nd International Conference on Ethical Issues in Biomedical Engineering*, Clemson, SC (1999)

Plenary Session II,\* *18th Southern Biomedical Engineering Conference and the 2nd International Conference on Ethical Issues in Biomedical Engineering*, Clemson, SC (1999)

Bone Cement, *25th Annual Meeting of the Society for Biomaterials* (1999)

Instrumentation and Measurement, *19th Southern Biomed. Eng. Conf.* (2000)

TMJ/Dental, *World Congress on Med. Physics and Biomed. Eng.*, Chicago, (2000)

Knee Joint Mechanics, *World Congress on Med. Physics and Biomed. Eng.*, Chicago, (2000)

Instrumentation and Measurement, *19th Southern Biomed. Eng. Conf.*, Blacksburg, VA (2000)

Symposium on Biocomposites,\* *SEM Ann. Conf. on Exp. And App. Mech.*, Portland, OR (2001)

Advanced Imaging Modalities, *21st Ann. Meet. Soc. Phy. Reg. Biol. Med.*, San Diego (2002)

Clinical Trials & Ethical Issues, *13th Ann.Meet. Soc. Biomat. Art. Organs* (India), Calcutta, India (2002)

Workshop on Mechanical Testing of Biological Tissues\*, *22nd Southern Biomed. Eng. Conf.*, Bethesda, MD (2003)

Biomaterials\*, *22nd Southern Biomed. Eng. Conf.*, Bethesda, MD (2003)

Bioengineering Applications & Education \*, *Biomed. Eng. In New York*, Alfred, NY (2003)

Ethical Dilemmas in BME, *25th Ann. Int. Conf. IEEE Eng. Med. Bio. Soc.*, Cancun, Mexico (2003)

Electric Fields/ Electroporation, *22nd Ann. Meet. Soc. Phy. Reg. Biol. Med.*, San Antonio (2004)

Bone Cements – 4, *7th World Biomaterials Congress*, Sydney, Australia (2004)

Bioelectricity and Ion Channels\*, *23rd Scientific Conference, Soc. Phy. Reg. Biol. Med.*, Lake Tahoe (2005)

Ethics Education in Bioengineering (panel discussion)\*, *3 Int. Conf. Ethical Issue in Biomed. Eng.*, Rochester (2005)

Regulation & Marketing of Biomedical Devices: Ethical Challenges (panel discussion)\*, *3 Int. Conf. Ethical Issue in Biomed. Eng.*, Rochester (2005)

Biomedical Research: Ethical Issues (panel discussion)\*, *3 Int. Conf. Ethical Issue in Biomed. Eng.*, Rochester (2005)

Tissue Engineering, *24th scientific Conf. Soc. Reg. Bio. Med.*, Cancan (2006)

Bioethics – *11th Ann. Meet.*, Institute of Biological Engineering, Tucson, AZ. (2006)

Valedictory Session – *National Conf. on Biomech*, Howrah, India (2006)

Modeling & Simulation in Biomechanics – 1 - *National Conf. on Biomech*, Howrah, India (2006)

Tissue Engineering – *National Conf. on Medical Implants*, Chennai, India (2007)

Dental Biomechanics – *23<sup>rd</sup> Southern Biomed. Eng. Conf.*, Washington, DC (2007)

Orthopaedic Biomechanics - *23<sup>rd</sup> Southern Biomed. Eng. Conf.*, Washington, DC (2007)

Biomechanics I & II – *24<sup>th</sup> Southern Biomed. Eng. Conf.*, El Paso, TX (2008)

Novel Techniques for Processing of Ceramics, Metal and Composite Biomaterial - *2009 Ann. Meet. Soc. Biomaterials*, San Antonio (2009)

Orthopaedics – *25<sup>th</sup> Southern Biomed. Eng. Conf.*, Miami, FL., (2009)

Open Forum to Discuss Increasing Med. And Biol. Eng. literacy – *19<sup>th</sup> Ann. Meet. AIMBE* (2010)

Implants – *26<sup>th</sup> Southern Biomed. Eng. Conf.*, College Park, MD (2010)

Hard Tissue and Posture - *26<sup>th</sup> Southern Biomed. Eng. Conf.*, College Park, MD (2010)

Ethics in Biomed. Eng. – *5<sup>th</sup> Frontiers in Biomed. Devices Conf. & Ex.*, ASME, Newport Beach, CA (2010)

Bone Mechanics – *ASME 21<sup>st</sup> Summer Bioeng. Conf.*, Farmington, PA (2011)

Nanotechnology III – *28<sup>th</sup> Southern Biomed. Eng. Conf.* Houston, TX (2012)

Ethical Issues in Biomed. Eng. & Med. Physics – World Congress, Biomed. Eng. and Med. Physics, Beijing, China (2012)

Drug Delivery & Control Release II - World Congress, Biomed. Eng. and Med. Physics, Beijing, China (2012)

Bioinformatics, BME Education and Training – *29<sup>th</sup> Southern Biomed. Eng. Conf.*, Miami, FL (2013)

Rehabilitative and Regenerative Engineering – *39<sup>th</sup> Ann. NorthEast Bioeng. Conf.*, Syracuse, NY (2013)

CVD/ Health Care – *30<sup>th</sup> Southern Biomed. Eng. Conf.* Gulfport , MS (2014)

Technical Session III & V – Int. Conf. Adv. Mat. and Energy Tech., IEST, Shibpur, India (2014)

Tissue Engineering/ Scaffolds/ Bone – *31<sup>st</sup> Southern Biomed. Eng. Conf.*, New Orleans, LA (2015)

Resin Composites- Polymerization Shrinkage and Stresses – *IADR/AADR/CADR Ann. Meet.*, Boston, MA (2015)

Poster Session II-*34<sup>th</sup> Southern Biomedical Engineering Conference*, Charlotte, NC (2018)

Bioengineering Ethics Education-*9<sup>th</sup> Annual International Conference on Ethics in Biology, Engineering, & Medicine*, Charlotte, NC (2018)

Ethical Concerns with Advances in Technology and Genetics-AAAS Annual Meeting, Seattle, Washington (2020)

Biomechanics-Conference *37<sup>th</sup> Southern Biomedical Engineering Conference*, New Orleans, (2021)

Symposium on Ethical Issues in Dentistry-*10<sup>th</sup> International Conference on Ethics in Biology, Engineering, and Medicine* (2021)

Plenary Session I-II *10<sup>th</sup> International Conference on Ethics in Biology, Engineering, and Medicine* (2021)

#### **RESEARCH INTERESTS:**

Biomechanics, Biomaterials, Rehabilitation Engineering, Bioethics, and Bioelectricity. Some of the orthopaedic biomechanics research projects were described in "The dynamics of bone fracture," by L. Fink, Yale Scientific, Vol. 19, Winter 1975, pp. 6-10.

#### SELECTED SPONSORED RESEARCH:

Whitehall Foundation, <i>Development of a New Non-Invasive Method</i> , PI (\$26,455)	1974-1976
National Institutes of Health, <i>A New Method to Measure the Rate of Fracture Healing</i> , (5RO1AM18360) PI (\$76,442)	1975-1978
National Institutes of Health, <i>A New Method to Measure the Rate of Fracture Healing</i> , (5RO1 AM 18360) PI (\$172,543)	1978-1981
National Science Foundation, <i>Undergraduate Research Participation</i> , PI (\$18,840)	1977-1978
Howmedica Inc., <i>Evaluation of a New MP Joint Prosthesis</i> , PI (\$1,500)	1977-1978
National Institute of Health (Research Career Development Award), <i>Evaluation and Modeling of Mechanical Properties of Bone</i> , 5RO4AM 00756 PI (\$250,000)	1978-1983
National Institute of Health, <i>Osteogenesis Imperfecta Treated with Electric Field</i> , Co-PI (\$129,293)	1979-1982
National Aeronautical Space Administration Contract NAS9 – 15950, <i>Development of a New Non-invasive Method to Determine the Integrity of Bone in vivo</i> , Co-PI (\$10,000)	1980-1981
The E.P. Stiles Trust Fund, <i>Effect of Radiotherapeutic Radiation on Bone Healing as Applied to Neoplastic Bone Treatment</i> , Co-PI (\$2,850)	1980-1981
Shrine Research Fund, <i>Increasing the Longitudinal bone growth by Non-invasive Electrical Stimulation of Epiphyseal Plate Area</i> , Co-PI (\$2,500)	1980-1981
Biomedical Research Support Grant (NIH), <i>A Comparison of Bone Density Measurement by Computed Tomography and Ultrasound</i> , Co-PI (\$2,250)	1981-1982
Biomedical Research Support (NIH), <i>Quantitative Evaluation of Braces in Reducing Knee Ligament Strains</i> , Co-PI (\$1,900)	1983-1984
Chesebrough - Pond's Inc., <i>Role of Pressure Dressing in Orthopaedic Problems</i> , PI (\$12,650)	1983-1984
National Science Foundation, <i>Electrical Properties of Wet Bone as Function of Frequency and Microstructure</i> , PI (ECS-8312680) (\$139,598)	1984-1987
National Science Foundation, <i>Undergraduate Engineering Design Projects to Aid Handicapped Children</i> , PI (EET – 8807522) (\$49,359)	1988-1995
National Institutes of Health, <i>Detection of Bone Vibration by SQUID Device</i> , PI (\$50,000)	1988-1991
National Science Foundation, <i>An Electromagnetic Device for Measuring In Vivo Bone Condition</i> , PI (\$139,598)	1989-1993
National Institutes of Health (Institutional Grant), <i>Small Instrumentation Grants</i> , PI (\$16,000)	1989-1990
National Science Foundation, <i>Ethics Session at the Biomechanics World Congress</i> , PI (\$4,500)	1990-1991
Biomedical Research Support Grant (BRSG) (NIH), <i>Bone Microcirculation: Stress and Porosity</i> , PI (\$5,300)	1991-1992
National Institutes of Health, <i>Minority High School Student Research Apprentice Program</i> , PI (\$30,000)	1992-1993

National Institutes of Health, <i>Minority High School Student Research Apprentice Program</i> , PI (\$30,000)	1993-1994
Orthopaedic Industry (Biomet, Kirschner Med. Corp.), <i>Impact of FDA Regulations on Biomed. Industry</i> , PI (\$37,710)	1993-1995
Zimmer, <i>Evaluation of Prosthetic Fit Using a New Anteverted Femoral Component</i> , PI (\$25,000)	1994-1995
National Institutes of Health, <i>Minority High School Student Research Apprentice Program</i> , PI (2-503-RR 0341-03) (\$29,000)	1994-1995
National Institutes of Health, <i>Minority High School Student Research Apprentice Program</i> , PI (RR 03431-05) (\$47,000)	1995-1996
Sutter Corp., <i>Location of Instantaneous Center of Rotation for Shoulder Motion</i> , PI (\$6,500)	1994-1995
Kirschner Med. Corp., <i>Stability of Fracture Fixation by Biofix<sup>®</sup> Rods</i> , PI (\$4,500)	1994-1995
Surgical Implants, Inc., <i>Testing of an Artificial Wrist Joint</i> , PI (\$1,000)	1995
American Honda Foundation, <i>A High School R.A.M.P. to Science</i> , PI (\$46,000)	1995-1996
Instron Corporation, <i>Equipment Grant for Biaxial Mechanical Testing System</i> , PI (\$45,000)	1997
Biomedical Industry, <i>First Int. Conf. Ethical Issues in Biomed. Eng.</i> , PI (\$23,690)	1997
Clemson University, <i>First Int. Conf. Ethical Issues in Biomed. Eng.</i> , PI (\$10,000)	1997
TMJ <sup>™</sup> Implants Inc., <i>Evaluation of TMJ Implants</i> , PI (\$32,710)	1997-1998
TMJ <sup>™</sup> Implants Inc., <i>Establishment of the R.W. Christensen Biomechanics Laboratory</i> , PI (\$300,000)	1997-2006
Clemson University, <i>Use of Vibration to Improve the Mechanical Properties of Bone Cement</i> , PI (\$3,000)	1998-1999
Clemson University, <i>18th Southern Biomedical Engineerirng Conf. and 2nd Intl. Conf. on Ethical Issues in Biomed. Eng.</i> , PI (\$15,000)	1998-1999
Whitaker Foundation, <i>18th Southern Biomedical Engineerirng Conf. and 2nd Intl. Conf. on Ethical Issues in Biomed. Eng.</i> , PI (\$8,000)	1998-1999
Greenville Hospital System, <i>18th Southern Biomedical Engineerirng Conf. and 2nd Intl. Conf. on Ethical Issues in Biomed. Eng.</i> , PI (\$10,000)	1998-1999
National Science Foundation, <i>A New Vibration Mixer for Bone Cement</i> , Co-PI (\$200,000, SBIR Phase I & II)	1999 – 2001
Dr. Dane Miller, <i>Establishment of a New Mechanical Testing Laboratory</i> , PI (\$105,000)	1999-2001
Kyphon Inc., <i>Measurement of Compressive and Flexural Properties due to the Addition of Increased Barium Sulphate to Bone Cement</i> , PI (\$22,500)	2001
Orthofix Inc., <i>Development of a unicortical external fixator</i> , PI (\$5,000)	2002
Univ. South Carolina Medical Center, <i>Stress relaxation behavior of human wrist ligaments</i> , PI (\$1,350)	2002-2003
Whitaker Foundation, <i>22<sup>nd</sup> Southern Biomedical Engineering Conference</i> , PI (\$8,000)	2003-2004
Biomedical Industry & Instron Corp., <i>22<sup>nd</sup> Southern Biomed. Eng. Conf. &amp; Aortic Valve Symp.</i> , PI (\$4,500)	2003

Microwave Research Applications Inc., <i>Microwave processing of dental ceramics</i> , PI (\$1,800)	2003
TMJ Implants Inc., <i>Improved Christensen TMJ implants</i> , PI (\$34,000)	2003-2005
Nuvana Medical Innovations, <i>Development and biomechanical testing of a new humerus nail</i> , PI (\$30,000)	2002-2004
Whitaker Foundation, <i>Biomedical Engineering in New York Conf.</i> , PI (\$7,000)	2003-2004
Biomedical Industry, <i>Biomed. Eng. in New York Conf.</i> , PI (\$2,000)	2003
SUNY, <i>Conversations across the disciplines</i> , PI (\$2,000)	2003
Instron Corp., <i>Design of a grip for soft tissues</i> ”, PI (\$15,000)	2004-2005
Eastman Kodak Co., <i>Processing of Ceramics by Microwave for Dental Applications</i> , PI (\$13,725)	2004-2005
SUNY, <i>Conversations Across the Disciplines Program</i> , 3 <sup>rd</sup> Intl. Conf. on Ethical Issues in Biomed. Eng., PI (\$3,500)	2004-2005
Whitaker Foundation, 3 <sup>rd</sup> <i>International Conference on Ethical issues in Biomed. Eng.</i> , PI (\$5,000)	2004-2005
Biomed. Industry, 3 <sup>rd</sup> <i>Intl. Conf. on Ethical issues in Biomed. Eng.</i> , PI (\$3,500)	2004-2005
United University Professions (UUP), <i>Travel Grant</i> , (\$750)	2006
Instron Corp., <i>Mechanical Testing of Biological Tissues and Biomaterials</i> , PI (\$ 20,682)	2006-2008
SUNY Downstate Medical Center, 4 <sup>th</sup> <i>Intl. Conf. Ethical Issues in Biomed. Eng.</i> ”, PI (25,000)	2006
POLYTECHNIC UNIVERSITY, 4 <sup>th</sup> <i>Intl. Conf. Ethical Issues in Biomed. Eng.</i> , PI (\$6,000)	2006
United University Professions (UUP), 4 <sup>th</sup> <i>Intl. Conf. Ethical Issues in Biomed. Eng.</i> , PI (\$20,000)	2006-2007
Indo-US Science & Technology Forum, <i>Indo-US Workshop on Ceramics for Medical Application</i> , (US PI), (\$50,000)	2006-2007
Ford Motor Company, <i>Mechanical Properties of Bone</i> , (PI) (\$30,000)	2008-2009
Ford Motor Company, <i>Implact Tolerance and Mechanical Response of Human Pelvis: A Biomechanical Study</i> , PI, (\$120,000)	2008-2010
SUNY Downstate Medical Center, 5 <sup>th</sup> <i>Intl. Conf. on Ethical Issues in Biomed. Eng.</i> , PI (\$20,000)	2008-2009
Orthopaedic Research Soc., 5 <sup>th</sup> <i>Intl. Conf. on Ethical Issues in Biomed. Eng.</i> , PI (\$5,000)	2008-2009
Int. Fed. Med. Biol. Eng. (IFMBE), 5 <sup>th</sup> <i>Intl. Conf. on Ethical Issues in Biomed. Eng.</i> , PI (\$5,000)	2008-2009
National Science Foundation, <i>Intl. Conf. on Ethical Issues in Biomed. Eng.</i> , PI (\$10,000)	2009-2010
United University Professions (UUP), 5 <sup>th</sup> <i>Intl. Conf. Ethical Issues in Biomed. Eng.</i> , PI (\$10,000)	2009-2010
Stryker Corp., <i>Biomechanical study of distal locking screw options in the treatment of distal Metaphyseal tibia fractures with IM nail.</i> , PI (\$5,176))	2009-2010
Orthopaedic Research Soc., 6 <sup>th</sup> <i>Intl. Conf. on Ethical Issues in Biomed. Eng.</i> , PI (\$5,000)	2010-2011
Int. Fed. Med. Biol. Eng. (IFMBE), 6 <sup>th</sup> <i>Intl. Conf. on Ethical Issues in Biomed. Eng.</i> , PI (\$7,000)	2010-2011
National Science Foundation, 6 <sup>th</sup> <i>Intl. Conf. on Ethical Issues in Biomed. Eng.</i> , PI (\$15,000)	2011-2012
Orthop. Res. & Edu. Foundation (OREF), <i>Residency Prog. Grant</i> , Co-PI (\$7,223)	2011-2012

Orthop. Res. & Edu. Foundation (OREF), <i>Residency Prog. Grant</i> , Co-PI (\$3,834)	2012-2013
NIH (subcontract from) New York Univ., <i>Mechanical Testing of Osteoporotic Bones</i> , PI (\$35,000)	2012-2013
Multiple Donars, Bioengineering Resarch (\$20,000)	2012-2016
SUNY Downstate Med. Center, <i>8<sup>th</sup> Int. Conf. Ethics Med. Biol.</i> , PI (\$8,500)	2014-2015
Research Foundtion for SUNY, <i>8<sup>th</sup> Int. Conf. Ethics Med. Biol.</i> , PI (\$15,000)	2014-2015
Alumni Association of School of Medicine, <i>8<sup>th</sup> Int. Conf. Ethics Med. Biol.</i> , PI (\$2,500)	2014-2015
Multiple Co-Sponsors, <i>8<sup>th</sup> Int. Conf. Ethics Med. Biol.</i> , PI (\$10,500)	2014-2015
American College of Dentists, <i>Symposium on Ethical Issues in Dentistry</i> , PI (\$7,000)	2020-2021

#### INVITED SPEAKER:

Alfred University  
 Am. Soc. Civil Engineers (Shreveport Chapter)  
 Am. Soc. Industrial Engineers. (North Louisiana Chapter)  
 Am. Soc. Mechanical Engineers (Ark-La-Tex Section)  
 Am. Soc. Mechanical Engineers (California Inland Section)  
 Anna University, Madras, India  
 Appalachian State University, Boone, NC  
 Bengal Engineering & Science University, Shibpur, India  
 Beihang University, Beijing, China  
 Bureau of Medical Devices (Food and Drug Administration), Washington DC  
 Calcutta University, India  
 Catholic University of America, Washington DC  
 City College of Technology, CUNY, Brooklyn, NY  
 Clemson University, Clemson, SC  
 College of Physicians and Surgeons of Columbia University, New York  
 Cornell University, Ithaca, NY  
 Cooper Union, New York, NY  
 CUNY College of Staten Island  
 Delhi University, Delhi, India  
 Drexel University, Philadelphia, PA  
 Govt. Med. College Hospital, Chandigarh, India  
 Gulf South Research Institute, New Orleans, LA  
 IEEE Eng. Med. Biol. Soc (So.Calif.Chapter)  
 Indian Institute of Science, Bangalore, India  
 Indian Institute of Technology, Chennai, India  
 Indian Institute of Technology, New Delhi, India  
 Institute of Electrical & Electronics Engrs. (Shreveport Sec.)  
 Jadavpur University, Calcutta, India  
 Jawaharlal Nehru University, New Delhi, India  
 Loma Linda University Medical Center, Loma Linda, California  
 Loma Linda University, Loma Linda, CA  
 Louisiana State University Medical Center, New Orleans, LA  
 Louisiana State University Medical Center, Shreveport, LA  
 Louisiana Tech, Ruston, LA  
 Madras General Hospital, Madras, India  
 Modern Dental College, Indore, India  
 National Institute of Orthopaedically Handicapped, India  
 National Institute of Standards and Technology (NIST), Gaithersburg, MD  
 National Physical Laboratory, New Delhi, India  
 New Jersey Institute of Technology, Newark, NJ  
 New York City College of Technology, New York, NY

New York University, College of Dentistry, New York, NY  
 North Texas University, Denton, TX  
 Polytechnic University, Brooklyn, NY  
 Postgraduate School of Medicine, Calcutta University, India  
 Queen Mary College, University of London  
 Railway Orthopaedic Institute & Research Center, India  
 Rutgers University, NJ  
 San Diego State University, CA  
 School of Dentistry, Louisiana State University (Frontiers of Science Lecture)  
 Sir N.R. Sarkar Medical College, Calcutta, India  
 Soc. Exp. Stress Analysis (Connecticut Chapter)  
 Southern Methodist University, Dallas, TX  
 Southern University, Baton Rouge, LA  
 Sree Chitra Tirunal Institute for Medical Sciences & Technology, Thiruvananthapuram, India  
 State College of NY, College at Geneseo  
 SUNY Downstate Medical Center, Brooklyn, NY  
 Syracuse University, Syracuse, NY  
 Texas A&M University, College Station, TX  
 Tulane University, New Orleans, LA  
 University of California, Riverside, CA  
 University of Delaware, DL  
 University of Kentucky, Lexington, KY  
 University of Maryland Medical Center  
 University of Maryland, Baltimore, MD  
 University of Maryland, College Park, MD  
 University of Miami, Miami, FL  
 University of Montreal, Canada  
 University of New South Wales, Sydney, Australia  
 University of North Texas  
 University of North Texas Health Science Center  
 University of Notre Dame, Notre Dame, IN  
 University of Pittsburgh, PA  
 University of South Carolina (DuPont Lecture), Columbia, SC  
 University of Tennessee, Knoxville, TN  
 University of Texas Health Science Center, Dallas, TX  
 University of Texas Medical Branch (UTMB), Grand Round talk to the Dept. Ortho. Surg. & Rehab., Galveston, TX  
 University of Washington, Seattle  
 Vanderbilt University, Nashville, TN  
 Washington University, St. Louis, MO  
 West Bengal Orthopaedic Association, India  
 West Virginia University, Morgantown, Wva.  
 William Paterson University, NJ  
 Yale University, New Haven, CT

## **UNIVERSITY COMMITTEES:**

### ***Yale University (1973-1979)***

Graduate Study Committee, Dept. of Eng. & App. Sci. (1974-75)  
 Steering Committee, Dept. of Eng. & App. Sci. (1975-76)  
 Medical Scientist Training Program Committee (M.D./Ph.D. 1976-79)  
 Graduate Admissions Committee, Dept. of Eng. & App. Sci. (1976-77)  
 Advisory Committee of the Graduate School (1976-78)  
 Organizing Committee, Biomedical Eng. Center (1976-78)

### ***LSU Medical Center (1979-1991)***

Faculty Retreat Committee on Improvement in the Quality of Education (1979-80)  
 Academic Computing Committee (1980-81)  
 Personnel Policies Committee (1980-81)  
 Ad Hoc Committee to Explore Academic Relationships Between LSU-S and LSUMC-S (1981-82)  
 Faculty Retreat Committee on Research (1981-82)

Biomedical Research Support Committee (1983)  
Animal Resources Committee (1982-83)  
Admissions Committee (1984-86)  
Research Advisory Committee (1985)  
Institutional Review/Human Experimentation Committee (1985-86)  
Bone Densitometry Ad Hoc Committee (1986)  
Institutional Review Board (1987-88)  
Committee on Continuing Medical Education (1989-91)  
Human Relations Committee (1991)  
Research Advisory Committee (1991)

***Loma Linda University (1991-1996)***

Oral Implantology Research Committee (1991-1996)  
Research Committee, Department of Orthopaedic Surgery (1991-1996)  
LLU School of Medicine Diversity Committee (Asst. Chairperson, 1993-1996)  
Diversity Steering Committee (1993-1996)  
Diversity Planning Committee (1994-1996)  
Graduate Faculty Committee, Dept. Anatomy (1993-1996)  
Ad Hoc Committee on the Storage of Electronic Research Data (1994)

***Clemson University (1996-2001)***

Local Program Committee, 1st International Conference on Ethical Issues in Biomedical Engineering - Chairman (1996-97)  
Strategic Planning Committee, Department of Bioengineering - Chairman (1996)  
CES Strategic Planning Committee for Outreach and Administration (1996-97)  
CES Curriculum Committee (1997-Present)  
Curriculum Committee, Department of Bioengineering - Chair (1997-2001)  
Applications Review Committee, Dept. of Bioeng. (1997-2000)  
Ph.D. Exam Committee, Dept. of Bioeng. (1997-2001)  
CES Honors and Awards Committee (1997-2001)  
Bookstore Advisory Committee (1998-2000)  
Faculty Senate (1998-2001)  
Steering Committee, Institute of Health Care Architecture & Planning (1998- 99)  
Curriculum Committee, Materials Science & Engineering Program (1997-2000)  
Policy Committee, Faculty Senate (1998-2001)  
Sigma Xi, Clemson Chapter - Vice President (1999-2000)  
Media Advisory Committee (Faculty Senate Rep., 1999)  
COES Gr. Teach. Asst. Awards Subcomm. - Chair (1999-2000)  
A.S. Sullivan Award Committee (2000)  
Sigma Xi, Clemson Chapter, Ann. Banquet Comm. - Chair (1999-2000)  
Sigma Xi, Clemson Chapter - President (2000-2001)  
Am. Asso. Univ. Prof., Clemson Chapter - Vice President (2000-2001)

***Alfred University (2001 – 2005)***

BMES Curriculum Committee (2001 – 2005)  
Library Committee (2002 – 2005)  
BMES Faculty Search Committee (2001-2003)  
Graduate Study Committee (2004 – 2005)  
BMES Task Force for Engineering Reorganization (2003)  
Faculty Tenure Committee for Dr. Cerrullo (2003)

***SUNY Downstate Medical Center (2005 – Present)***

Orthopaedic Surgery Program Committee (2005 – Present)  
Biomedical Engineering Faculty Committee (2006 – Present)  
Admission Committee, Biomed. Eng. Program, Chair (2007 – Present)  
Executive Committee, Graduate School (2007 – Present)  
Orthop. Surg. & Rehab. Med. Research Committee (2008 – Present)  
Biomedical Engineering Program Executive Committee, Chair (2008 – Present)  
Downstate Research Cluster (HPC) Committee (2008 – Present)  
Recruitment Committee, Graduate School (2008 – 2009)  
Robert Furchgott Medical Student Award & Clinical Fellowship Committee (2008 – Present)  
Search Committee for Dean of the Graduate School and Asso. Dean of Basic Sci. Res. (2008 - 2009)

Sigma Xi Chapter (Secretary, 2008) (President, 2009 - Present)  
Diversity Committee (2011 – Present)  
LCME Self-study Subcommittee – Member (2012 - 2013)  
SUNY Faculty Senate Graduate Studies and Research Committee (2013-2015)  
SUNY Task Force on Open-Access Publication (2015- Present)  
SUNY Faculty Senate Ethics Committee (2015- Present)

#### **CIVIC ORGANIZATIONS:**

President (1968-69): Indian Student Association, Tennessee Tech.  
Vice President (1972), Member of Policy Board (1970-71): Int. Asso., Stanford University  
Member of Executive Committee: India Association, New Haven, CT (1976)  
President (1983), Vice President (1982), Secretary and Treasurer (1981)  
Member at Large: India Association of Shreveport, LA (1980)  
Vice President for Fund Raising: India Assoc, Inland Empire, CA (1992-93)  
Life Member: Oconee Memorial Hospital Association (1998-Present)  
Member, Board of Directors, Allegeny Rehabilitation Associates (2004 - 2006)  
Member, Board of Directors, Amity Resource Management, Inc. (2004 - 2006)  
Vice President, Board of Directors, Bengal Eng. & Sci. Univ. Foundation (2008 – Present)  
Permanent Invitee (PI), Exec. Comm. of the Global Alumni Asso. Bengal Eng. & Sci. Univ. (2009 – Present)

#### **DIRECTORY LISTINGS:**

Who's Who in Frontier Science and Technology  
Who's Who in the World  
Personalities of America  
Personalities of the South  
Who's Who in Technology Today  
Who's Who in Society  
International Who's Who of Intellectuals  
Who's Who in Technology  
Who's Who in Engineering  
American Men and Women of Science  
Who's Who Registry of Business Leaders  
Who's Who in Medicine and Health Care  
Who's Who in Engineering Education (WWE)

#### **PATENT:**

Method and apparatus for facilitating the non-invasive, non-contacting study of piezoelectric members, (Patent No. 4,235,243; issued on Nov. 25, 1980)

Method of microwave processing ceramics and microwave hybrid heating system for the same. Provisional Patent application submitted 2003, PCT application submitted in 2004. (co inventors: C.V. Ram Mohan and Gary Delregno)

Intramedullary stem for total Joint or fracture fixation, (Prov. Patent App. submitted in 2005)

Ceramic head and total ceramic temporomandibular joint (TMJ) implant, (Patent application submitted in September 2006)

Automated bone cement mixing system, (Patent No. US 8,057,090B1 issued on Nov. 15, 2011)

Automated Bone Cement Mixer (Patent No. 8,382,363 B1)

#### **CONSULTANT:**

Impact General, Inc., Orange, California (Expert witness for implant failure and musculoskeletal injury cases) (1991-96)

Orthopaedic Implant Companies (Design of orthopaedic implants, biomaterials and rehabilitation devices) (1980- Present)

AcroMed, Cleveland, Ohio. (Expert witness for failure of spine implants) (1995-96)

Design Dynamics International, and Medical Modeling Inc. Golden, Colorado (Steriolithography and rapid prototyping) (1994-2001)

Prizm Medical Inc., Duluth, GA (Electrical stimulation for wound healing) (1997)

TMJ™ Inc., Golden, Colorado (Design and testing of TMJ implants) (1994-Present)

Kyphon Inc., San Francisco, CA (Injectable Bone Cement) (2001-2002)

## MISCELLANEOUS:

The Society of Biomaterials and Artificial Organs (India) named the highest award in the Ph.D. student category presentations in their Annual meeting as the **Bajpai & Saha Award**, named after (late) Dr. P. K. Bajpai, Professor of Biology in the University of Dayton and Poof. Subrata Saha, honoring their contributions in the field of Biomaterials. This award has been given to the Ph.D. student for the best paper for last twenty years.

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At the 30<sup>th</sup> and 31<sup>st</sup> Southern Biomedical Engineering Conferences held at Gulfport, Mississippi, and New Orleans, LA, in 2014 and 2015 respectively, the best paper presented by a Ph.D. student received the **Saha best paper award**, named after Dr. Subrata Saha recognizing his contribution to this conference series.

Total knee prosthesis and SEM of the fracture surface of a carbon-fiber-reinforced bone cement specimen appeared on the cover of *Concise Encyclopedia of Composite Materials* (ed. By A. Kelly), published by Pergamon Press (1989)

Bone microstructure. Cover of *Yale Scientific*, Vol. 49, No. 7

## PUBLICATIONS SUMMARY:

Journal Articles	150
Books (thesis, edited volumes and journals) and book chapters	47
Papers in Proceedings and Special Journal Issues	398
Abstracts	184
Other Publications	30
Presentations at National and Regional Meetings	79

## JOURNAL ARTICLES:

1. **Saha, S.**, Mukherjee, S. and Chao, C.C. (1972) Concentrated forces in semiinfinite anisotropic media. *J. Composite Mat.*, Vol. 6, pp. 403-407.
2. **Saha, S.** (1973) Anisotropic analysis of bone: Some two-dimensional problems. *J. Biomech.*, Vol. 6, pp. 641-650.
3. **Saha, S.** and Hayes, W.C. (1974) Instrumented tensile impact tests of bone. *Experimental Mech.*, Vol. 14, pp. 473-478.
4. **Saha, S.** (1975) Biomedical Engineering at Yale. *Yale Scientific*, Vol. 49, No. 7, pp. 17-20.
5. **Saha, S.** and Hayes, W.C. (1976) Tensile impact properties of human compact bone. *J. Biomech.*, Vol. 9, pp. 243-251.
6. **Saha, S.**, Martin, D.L. and Phillips, A. (1977) Elastic and strength properties of canine long bones. *Med. and Biol. Eng. and Comp.*, Vol. 15, pp. 72-74.

7. **Saha, S.** (1977) The dynamics of bone fracture: from a materials viewpoint. *Bull. for the Hosp. for Joint disease*, Vol. 38, pp. 1-3.
8. **Saha, S.** and Hayes, W.C. (1977) Relations between tensile impact properties and microstructures of compact bone. *Calc. Tiss. Res.*, Vol. 24, 65-72.
9. **Saha, S.** and Lakes, R.S. (1977) The effect of soft tissue on wave propagation and vibration tests for determining the in-vivo properties of bone. *J. Biomech.*, Vol. 10, pp. 393-401.
10. Taitsman, J.P. and **Saha, S.** (1977) Tensile properties of reinforced bone cement. *J. Bone Joint Surg.*, Vol. 59, pp. 419-425.
11. **Saha, S.** and Lakes, R.S. (1977) A non-invasive technique for detecting stress waves in bone using the piezoelectric effect. *IEEE Trans. on Biomed. Eng.*, BME-Vol. 24, pp. 508-512.
12. **Saha, S.** (1977) Longitudinal shear properties of human compact bone and its constituents, and the associated failure mechanisms. *J. Mat. Sc.*, Vol. 12, pp. 1798-1806.
13. Lakes, R.S. and **Saha, S.** (1978) A non-contracting electromagnetic device for the determination of in-vivo properties of bone. *Med. Instrum.*, Vol. 12, No. 2, pp. 106-109.
14. **Saha, S.** and Kraay, M.J. (1979) Bending properties of wire-reinforced bone cement for applications in spinal fixation. *J. Biomed. Mat. Res.*, Vol. 13, pp. 443-457.
15. Lakes, R. and **Saha, S.** (1979) Cement line motion in bone. *Sci.*, Vol. 34, pp. 501-503.
16. Lakes, R. and **Saha, S.** (1980) Long term torsional creep in compact bone. *J. Biomech. Eng.*, Trans. of ASME, Vol. 102, pp. 178-180.
17. **Saha, S.**, Mack, A. and Albright, J. A. (1980). The effect of axial tension on the load bearing capacity of traction pins. *Acta Orthopaedica Scandinavica*, Vol. 51, pp. 209-214.
18. Guzelsu, N. and **Saha, S.** (1981) Electromechanical wave propagation in long bones. *J. Biomech.* Vol. 14, pp. 19-33.
19. **Saha, S.**, Pal, S. and Albright, J.A. (1982) Surgical drilling: Design and performance of improved drill. *J. Biomech. Eng.*, Vol. 104, pp. 245-252.
20. Pal, S. and **Saha, S.** (1982) Stress relaxation and creep behavior of normal and carbon fiber reinforced acrylic bone cement. *Biomat.*, Vol. 3, pp. 93-96.
21. Reddy, G.N. and **Saha, S.** (1982) A differential method for measuring impedance properties of bone. *J. Bioelectricity*. Vol. 1, pp. 173-194.
22. Datta, R., **Saha, S.**, Datta, S. and Albright, J.A. (1982) Determination of tolerance dose for preoperative and postoperative radiotherapy of bones. *Med. Physics*, Vol. 9, No. 4, pp. 617-618.
23. Pal, S., **Saha, S.** and Reddy, G.N. (1982) Ultrasonic properties of the human Cancellous Bone. *J. Assoc. Engrs., India*, Vol. 57, pp. 73-77.
24. Reddy, G.N., and **Saha, S.** (1983) A highly sensitive non-contacting electromagnetic device for detecting stress waves in structures. *Experimental Mech.*, Vol. 23, pp. 418-424.
25. Reddy, G.N., **Saha, S.**, and Tuai, G.L. (1983) A pulsed characteristic electromagnetic stimulator for of bone growth studies. *Med. Instrumentation*, Vol. 17, No. 5, pp. 347-350.
26. Pelker, R R. and **Saha, S.** (1983) Stress wave propagation in Bone. *J. Biomech.*, Vol. 16, No. 7, pp. 481-489.
27. Wong, F.Y., Pal, S. and **Saha, S.** (1983). The assessment of in vivo bone condition in humans by impact response measurement. *J. Biomech.*, Vol. 16, No.10, pp. 849-856.
28. **Saha, S.** and Pal, S. (1983) Strain rate dependence of the compressive properties of bone cement. *J. Biomed. Mat. Res.*, Vol.

17, pp.1041-1047.

29. Reddy, G.N. and **Saha, S.** (1983) A variable plus-burst electromagnetic generator for electrical stimulation of biological systems. *J. of Biomedical Engineering*, Vol. 5, No. 9, pp. 336-339.
30. Datta, R., and **Saha, S.** (1983) Quantitative determination of tolerance dose for preoperative and postoperative radiotherapy of bones. *Med. Physics*, Vol. 10, No. 2, pp. 143-145
31. Singh, S. and **Saha, S.** (1984) Electrical properties of bone: A review. *Clin.Orthopaed. & Related Res.* No. 186, pp. 249-271.
32. **Saha, S.** and Pal, S. (1984) Mechanical properties of bone cement: A review. *J. Biomed. Mat. Res.* Vol 18, 4, pp 435-462.
33. Guzelsu, N. and **Saha, S.** (1984) Electro-mechanical behavior of wet bone I: Theory. *J. Biomech. Eng. Trans. ASME*, Vol. 106, pp. 249-261.
34. Chen, I.I.H. and **Saha, S.** (1984) Analysis of an intensive magnetic field on blood flow. *J. Bioelectricity*, Vol. 3, No. 1 & 2, pp. 293-298.
35. Guzelsu, N. and **Saha, S.** (1984) Electro-mechanical behavior of wet bone, Part II: Wave Propagation. *J. Biomech. Eng.*, Trans. ASME, Vol. 106, pp. 262-271.
36. Reddy, G.N. and **Saha, S.** (1984) Electrical and dielectric properties of wet bone as a function of frequency. *IEEE Trans. on Biomed. Eng.* Vol. BME-31, No. 3, pp. 296-203.
37. **Saha, S.** and Pal, S. (1984) Improvement of mechanical properties of acrylic bone cement by fiber reinforcement. *J. Biomech.*, Vol. 17, pp. 467-478.
38. **Saha, S.**, Reddy, G.N. and Albright, J.A. (1984) Factors affecting the measurement of bone impedance. *Med. Biol. Eng. Comp.* Vol. 22, No. 2, pp.123-129.
39. Pal, S. and **Saha, S.** (1984) The effect of deformation rate on the flexural fracture behavior of long bones. *Med. Biol. Eng. & Comp.* Vol. 22, pp. 251-254. DOI 10.1007/BF0244275/
40. **Saha, S.**, Misra, S. and Saha, P. (1985) Bioengineers, health care technology and bioethics. *J. Med. Eng. and Tech.*, Vol. 9, No. 2, pp. 55-60.
41. Pelker, R.R. and **Saha, S.** (1985) Wave propagation across a bony discontinuity simulating a healing fracture. *J. Biomech.*, Vol. 18, No. 10, pp. 745-753
42. Chen, I.I.H. and **Saha, S.** (1985) Analysis of an intensive magnetic field on blood flow II. *J. Bioelectricity*, Vol. 4, pp. 55-61.
43. Davies, R. and **Saha, S.** (1985) Osteoporosis. *American Family Physician*, Vol. 32, No. 5, (November), pp. 107-114.
44. Saha, P. and **Saha, S.** (1986) Ethical responsibilities of the clinical engineer. *J. Clin. Eng.*, Vol. 11, No. 1, pp. 17-25.
45. **Saha, S.** and Pal, S. (1986) Mechanical characterization of commercially made carbon fiber-reinforced polymethylmethacrylate. *J. Biomed. Mat. Res.*, Vol. 20, No. 6, pp. 817-826.
46. Engelhardt, J.A., and **Saha, S.** (1987) The effect of femoral component section modulus on the stress distribution in the proximal human femur. *Med. Bio. Eng. Comp.*, Vol. 26, pp. 38-45.
47. Singh, S. and **Saha, S.** (1987) Electrical characteristics of electrode bone interface. *Med. Bio. Eng. Comp.*, Vol. 25, No. 4, pp. 448-452.
48. Chen, I.I.H. and **Saha, S.** (1987) Wave propagation characteristics in long bones to diagnose osteoporosis. *J. Biomech.*, Vol. 20, No. 5, pp. 523-527.
49. Chen, I.I.H. and **Saha, S.** (1987) Thermal analysis of the bone surface induced by laser radiation. *Annals Biomed. Eng.*, Vol. 15, No. 5, pp. 457-466.

50. **Saha, S.** and Saha, P. (1987) Bioethics and applied biomaterials. *J. Biomed. Mat. Res.: Applied Biomat.*, Vol. 21, No. A2, pp. 181-190.
51. **Saha, S.** and Williams, P.A. (1988) Effect of various storage methods on the dielectric properties of compact bone. *Med. & Biol. Eng. & Comp.*, Vol. 26, pp. 199-202.
52. Barrow, G.W and **Saha, S.** (1988) Menstrual irregularity and stress fractures in collegiate female distance runners. *Amer. J Sports Med*, Vol. 16, No. 3, pp. 209-216.
53. Saha, P.S. and **Saha, S.** (1988) Clinical trials of medical devices and implants: Ethical concerns. *IEEE Eng. Med. & Biol. Mag*, Vol. 7, pp. 85-87.
54. **Saha, S.** (1989) Ceramics for orthopaedic and dental applications. *IEEE Eng. in Med. & Biol. Magazine*, Vol. 8, pp. 37-39.
55. **Saha, S.** and Williams, P. (1989) Electrical and dielectric properties of wet human cancellous bone as a function of frequency. *Ann. Biomed. Eng.*, Vol. 17, pp. 143-158.
56. Horner, S.R., Sadasivan, K.K., Lipka, J.M., and **Saha, S.** (1989) Analysis of mechanical factors affecting the fixation of olecranon fractures. *Orthop.*, Vol. 12, No. 11, pp. 1469-1472.
57. **Saha, S.** (1989) Ultrasonic and vibration methods to measure in vivo bone properties. Presented at the 1989 Winter Ann. Meet., ASME, Paper No. 89-WA/NDE-4 (invited paper), pp. 1-14.
58. Covey, D.C., **Saha, S.**, Lipka, J.M., and Albright, J.A. (1990) Biomechanical comparison of slotted and non-slotted interlocking nails in the femoral shaft fractures. *Clin. Orthop. & Rel. Res.*, No. 252, pp. 246-251.
59. Kufahl, R.H. and **Saha, S.** (1990) A theoretical model for stress generated fluid flow in the canaculi-lacunae network in bone tissue. *J. Biomech.*, Vol. 23, pp. 171-180.
60. Saha, P. and **Saha, S.** (1991) Ethical issues on the use of animals in the testing of medical implants. *J. Long-Term Effects of Med. Imp.*, Vol. 1, No. 2, pp. 127-134.
61. Behari, J., Rai, D.V., **Saha, S.**, and Marthur, M. (1991) Bone metabolism in calcium and phosphorus deficient rats. *Med. and Life Sci. Eng.* pp. 14-23.
62. Bankston, A.B., Keating, M. and **Saha, S.** (1992) The biomechanical evaluation of intramedullary nails in distal femoral shaft fractures. *Clin. Orthop. Related Res.*, No. 276, pp. 272-282. DOI: 10.1097/00003086-199203000-00039.
63. **Saha, S.** and Saha, P. (1992) Biomedical engineering and animal research. *BMES Bulletin*, Vol. 16, No. 2, pp. 22-23.
64. Gustafson, A., Clark, J.C., **Saha, S.** and Campbell, P. (1993) Catastrophic peri-implant bone loss caused by polyethylene and metallic wear in total knees. *J. Long Term Effects of Med. Imp.*, Vol. 3, No. 2, pp. 91-104.
65. Mukherjee, D.P. and **Saha, S.** (1993) The application of new composite materials for total Joint arthroplasty. *J. Long Term Effects of Med. Imp.*, Vol. 3, No. 2, pp. 131-141.
66. Hajek, P.D., Bicknell, H.R., Bronson, W.E., Albright, J.A. and **Saha, S.** (1993) Clinical & biomechanical analysis of one versus two distal screws in the treatment of femoral shaft fractures with locked intramedullary nails. *J. Bone Joint Surg.*, Vol. 75-A, No. 4, pp. 519-525.
67. Frykman, G.K., Peckham, R.H., Willard, K., and **Saha, S.** (1993) External fixators for treatment of unstable wrist fractures. *Hand Clinics*, Vol. 9, No. 4, pp. 555-565.
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70. Maruyama, T., **Saha, S.**, Mongiano, D.O., Mudge, K. (1996) Metacarpal fracture fixation with absorbable polyglycolide

rods and stainless steel K wires: A biomechanical comparison. *J. Applied Biomat.*, Vol. 33, pp. 9-12.

71. **Saha, S.** and Williams, P.A. (1996) The electrical and dielectric properties of human bone tissue and their relationship with density and bone mineral content. *Annals Biomed. Eng.*, Vol. 24, pp. 222-233.
72. Kido, H. and **Saha, S.** (1996) Effect of HA coating on the long-term survival of dental implants: A review of the literature. *J. Long-Term Effects of Med. Imp.*, Vol. 6, No. 2, pp. 119-133.
73. Kido, H., Schultz, E.E., Kumar, A., Lozada, J. and **Saha, S.** (1997) Implant diameter and bone density: Effect on initial stability and pull-out resistance. *J. Oral Implantology*, Vol. 23, No. 4, pp.163-169.
74. **Saha, S.** and Saha, P. (1997) Biomedical ethics and the biomedical engineer: A review. *Critical Reviews in Biomed. Eng.*, Vol. 25, No. 2, pp. 163-201.
75. Saha, P. and **Saha, S.** (1998), Managed care and new medical technology raise ethical issues. *Biomech.*, Vol. 5, No. 7, pp. 57-64.
76. Saha, P. and **Saha, S.** (1999) Improved compressive, tensile and fatigue properties of bone cement by ultrasonic vibration. *MUSC Orthop. J.*, Vol. II, pp. 80-82.
77. **Saha, S.**, Campbell, C.E., Sarma, A., Saha, Supriya, and Christensen, R. W. (2000) A biomechanical evaluation of the Christensen temporomandibular joint implant. *Critical Reviews<sup>TM</sup> in Biomed. Eng.*, Vol. 28, Issues 3&4 pp. 399-404.
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80. May, B., **Saha, S.** and Saltzman, M. (2001) A three dimensional mathematical model of the temporomandibular joint loading. *Clin. Biomech.*, Vol. 16, pp. 489-495.
81. Kirk, T., **Saha, S.**, Bowman, L.S. (2001) A new ankle laxity tester and its use in the measurement of the effectiveness of taping. *Med. Eng. Physics*, Vol. 22, pp. 723-731.
82. Garabadian, C., May, B. M. and **Saha, S.** (2001) Reducing condylar compression in clenching patients. *T M Journal*, Vol. 1, issue 1, pp. 15-19.
83. May, B. and **Saha, S.** (2001) Animal models for TMJ studies: A review of the literature. *T M Journal*, Vol. 1, issue 1, pp. 20-27.
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86. **Saha, S.** and Saha, P. (2004) Conflicts of values and biodefense measures. *IEEE Eng. Med. Bio. Magazine*, Vol. 23 No.1, pp. 171-174.
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88. Kashi, A. R. and **Saha, S.** (2005) Dental implants: A historical perspective and future trends. *Int. J. Med. Imp. & Devices*. Vol. 1, Issue 2, pp. 69-82.
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95. **Saha, S.** (2007) Meeting report: Third international conference on ethical issues in biomedical engineering. *J. of Long-Term Effects of Medical Implants*, Vol. 17, Issue 1, pp. 71-80.
96. Dickerson, C.R., **Saha, S.**, and Hotchkiss, C.E. (2008) Relationships between densitometric and morphological parameters as measured by peripheral computed tomography and the compressive behavior of lumbar vertebral bodies from macaques (*Macaca fascicularis*). *Spine*, Vol. 33, No. 4, pp. 366-372.
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101. Chhatbar, P. and **Saha, S.** (2009) Future of implantable neuroprosthetic devices: ethical considerations. *J. Long-Term Eff. of Med. Imp.*, Vol. 19, No. 2, pp. 123-137.
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106. Horne, L.T., Murray, P.M., **Saha, S.** and Sidhar, K. (2010) Effects of distal radius bone graft harvest on the axial compressive strength of the radius. *J. Hand Surg. Am.*, Vol. 35A, No. 2, pp. 262-266.
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21. Williams, P.A., **Saha, S.**, and Roots, E.N. (1990) Application and design of a capacitive proximity device for handicapped children. 9th Southern Biomed. Eng. Conf., Miami, FL.
22. Hartline, P., **Saha, S.**, and Albright, J.A. (1990) A biomechanical evaluation of the pullout strength of pedicle screws. 9th Southern Biomed. Eng. Conf., Miami, FL.
23. Kufahl, R.H. and **Saha, S.** (1990) A beam on an elastic foundation model of cancellous bone. 9th Southern Biomed. Eng. Conf., Miami, FL.
24. **Saha, S.** (1990) Aging and mechanical properties of bone. 9th Southern Biomed. Eng. Conf., Miami, FL.
25. Hajek, P.D., Lipka, J., Hartline, P., **Saha, S.**, and Albright, J.A. (1990) Biomechanical study of C1-C2 posterior arthrodesis techniques. 37th Ann. Meet. Louisiana Orthop. Assoc., New Orleans, LA.
26. McKinney, A.I. and **Saha, S.** (1991) Biomedical application of computer graphics. Louisiana Acad. Sciences Meet. Shreveport, Louisiana.
27. Schultz, E. E., Smith, B.D., Wei, L., **Saha, S.**, Dai, Q., Zachariah, P., Evans, T. and Bennett, D. (1992) Cortical contribution to vertebral body mechanical strength. 9th Internat. Workshop Bone Densitometry, Traverse City, MI.
28. Schulz, E.E., Smith, B.D., **Saha, S.**, Dai, Q., Zachariah, P., Chang, P.S. (1993) Cortical contribution to vertebral body compressive strength. Fourth Internl. Symp. Osteoporosis, Hong Kong.
29. **Saha, S.** (1994) Impact of FDA regulations on orthopaedic industry. 13th Ann. Southern Biomed. Eng. Conf., Washington, DC.
30. **Saha, S.** (1994) Evaluation of pressures applied by elastic dressings. 62nd Ann. Postgraduate Conv., Loma Linda University, Loma Linda, CA.
31. Donaldson, T, Robertson, D. and **Saha, S.** (1994) PCL strength in total knees. 62nd Ann. Postgraduate Conv., Loma Linda University, Loma Linda, CA.
32. Quiang, Q., Bigornia, A., King, J. Jr., Wechter, W. Vida. J.T., **Saha, S.**, Bunnell, W.P. and Rasi, L. (1994) Effects of S-KTP on combined fracture disuse osteopenia. 62nd Ann. Postgraduate Conv., Loma Linda Univ., Loma Linda, CA.
33. **Saha, S.** (1994) Ethical issues in biomedical engineering: an overview. 16th Ann. Int. Conf. IEEE Eng. med. Biol. Soc., Baltimore, MD.
34. **Saha, S.** (1994) Impact of FDA regulations on academia. 16th Ann. Int. Conf. IEEE Eng. Med. Biol. Soc., Nov. 3-6, Baltimore, MD.
35. Burrows, D., Mudge, K., Wood, V., Dai, Q., and **Saha, S.** (1994) Tendon transfers for intrinsic minus deformities: A biomechanical comparison. Orthopaedic Research Seminar, Loma Linda University Medical Center.
36. Peckham, R., **Saha, S.**, and Menon, J. (1994) Fixation technique for total wrist arthroplasty. Orthopaedic Research Seminar, Loma Linda University Medical Center.
37. Willard, K., Unsell, R., Mclurg, J., and **Saha, S.** (1994) Effect of radial styloidectomy on pressure distribution of the wrist. Orthopaedic Research Seminar, Loma Linda University Medical Center.
38. Grames, B., Reiswig, P., **Saha, S.**, and Dai, Q. (1994) Nailing in the treatment of tibial shaft fractures. Orthopaedic Research Seminar, Loma Linda University Medical Center.
39. Gunnoe, B., and **Saha, S.** (1994) Lumbar burst fractures; Herrington Rod vs. TSRH. Orthopaedic Research Seminar, Loma Linda University Medical Center.
40. Mongiona, D., Mudge, K., and **Saha, S.** (1994) Effect of manuel vs. power tapping on the holding power of bone screws. Orthopaedic Research Seminar, Loma Linda University Medical Center.
41. Egerer, A., and **Saha, S.** (1994) The role of cement lines in bone structures and properties. Orthopaedic Research Seminar,

Loma Linda University Medical Center.

42. **Saha, S.** (1994) Other ongoing projects. Orthopaedic Research Seminar, Loma Linda University Medical Center.
43. Cheng, W.K.R., Beitel, B., Kim, Y.J., Kumar, A., Wagner, W.F. and **Saha, S.** (1995) A biomechanical evaluation of different knotting techniques and suture materials. 14th Southern Biomed.Eng. Conf., Shreveport, LA.
44. **Saha, S.** (1995) Impact of FDA regulations on biomedical industry. Invited presentation at the Fourth Ann. Event of the Am. Inst. Med. Biol. Eng. (AIMBE), Washington, DC.
45. Williams, P.A., **Saha, S.** and Roots, E.N. (1995) The application of modern sensor technology as input interfaces for individuals with disabilities. Proc. "Technology and Persons with Disabilities" Conf., Los Angeles, CA.
46. Frykman, G.K., Willard, K. and **Saha, S.** (1995) Is a dynamic external fixator for wrist fracture fixation a viable concept? 6th Cong. Internat. Fed. Soc. Surg. Hand.
47. **Saha, S.** (1996) FDA regulation and biomedical industry: suggested future changes. 15th Southern Biomed. Eng. Conf. at Toledo, Ohio.
48. **Saha, S.** (1998) "Ethical issues in the engineering profession with examples from bioengineering," January Meeting, Project Management Institute (PMI), Greenville, SC.
49. **Saha, S.** (1998) Ethical issues in biomechanics research & practice. A tutorial presented at the North American Congress on Biomechanics 1998, Ontario, Canada
50. Barfield, W. R., McBryde, A.M., Otteni, J.F., Carter, J.S., and **Saha, S.** (1999) Evaluation of factors associated with increased risk of stress fracture among a group of female freshmen cadets and a female control group. 18<sup>th</sup> Southern Biomed. Eng. Conf., Clemson, SC.
51. Kirk, T. and **Saha, S.** (1999) Ankle laxity tester. 18<sup>th</sup> Southern Biomed. Eng. Conf., Clemson, SC.
52. McRoberts, M. and **Saha, S.** (1999) Shock absorption at the knee: relative contributions of the soft tissues. 18<sup>th</sup> Southern Biomed. Eng. Conf., Clemson, SC.
53. Rao, R. and **Saha, S.** (1999) Fatigue behavior of bone cement with vacuum mixing and sonication. 18<sup>th</sup> Southern Biomed. Eng. Conf., Clemson, SC.
54. **Saha, S.** (2001) Future of biomedical engineering: Ethics and challenges. Invited talk at the 12<sup>th</sup> Ann. National Conf. Soc. Biomaterials & Artificial Organs- India, Madras IIT, India.
55. **Saha, S.** (2002) Bioethics and biomaterials research. C. P. Sharma Award Lecture, 13<sup>th</sup> Ann. Meet. Soc. Biomat. Art. Organs, India. Calcutta, India (abstract, p. 1).
56. **Saha, S.** (2002) Clinical trial, standardization and medicolegal aspects of biomedical materials research. Panel Discussion, National Conf. Biomed. Mater., Calcutta, India.
57. **Saha, S.** (2002) Biomaterials: Recent orthopaedic applications. Am. Chemical Soc., Penn-York Section, Bradford, Penn.
58. Rectenwald, J., Murray, P. M., Karkare, N., and **Saha, S.** (2002) Stress relaxation behavior of wrist ligaments. Residents & Fellows meeting, SPSS.
59. **Saha, S.** (2002) The relationship between bone microstructure and its mechanical properties," Invited Speaker, Biocomplexity Workshop III, University of Notre Dame, (abstract, p. 40).
60. **Saha, S.** (2002) Teaching bioethics for biomedical engineering students. Professional Development Workshop at 2<sup>nd</sup> Joint Conf. Eng. Med. Biol. Soc. Biomed. Eng. Soc., Houston, TX.
61. **Saha, S.** (2003) Mechanical testing of biological tissues. 22nd Southern Biomed. Eng Conf., Charlotte, NC
62. **Saha, S.** (2003) The relationship between bone biology and mechanics. Biology Club Meet. Alfred University

63. **Saha, S.** (2003) Biomaterials: New Challenges. Symp. Materials Synthesis and Processing, Rochester, NY
64. **Saha, S.** (2004) Relationship between the porosity and the mechanical properties of bone. PMI Meeting, Itaca, NY.
65. **Saha, S.** (2004) Electromedicine: Facts or myths? 15<sup>th</sup> Ann. Clin. Meet. Am. Acad. Pain Management, San Antonio
66. **Saha, S.** (2005) Biomaterials for drug delivery. Inauguration Symp. Center for Drug Delivery, Polytechnic University.
67. **Saha, S.** (2006) Bioethics – some provocative issues. 11<sup>th</sup> Ann. Meet., Institute of Biological engineering, Tucson, AZ.
68. **Saha, S.** (2006) Ethical issues in biomedical research. Workshop on Biomaterials and Biomedical Devices, Calcutta, India.
69. **Saha, S.** (2009) History of the southern biomedical engineering conference. Invited keynote speech at the 25<sup>th</sup> Southern Biomed. Eng. Conf., Miami, FL.
70. **Saha, S.** (2012) Microwave processing of dental ceramics. Bengal Engineering and Science University, India
71. **Saha, S.** (2012) Dynamic testing of bone. Bengal Engineering and Science University, India
72. **Saha, S.** (2013) Ethical issues in Biomedical Engineering Research. International Workshop on Recent Trends in Biomedical and Allied Engineering. Bengal Eng. & Sci. Univ., Shibpur, India
73. Pendola, M. and **Saha, S.** (2014) CAD dental ceramics systems and microwave sintering. AADR Long Island Section Meeting and Poster session. 1<sup>st</sup> Place Award in student/resident category.
74. **Saha, S.** (2014) Orthoparadic and dental materials: some recent developments. Int. Conf. Adv. Mat. & Energy Tech., Keynote Address, Shibpur, India..
75. **Saha, S.** (2014) Ethics and biomedical engineering research. 78<sup>th</sup> Ann. Meet. Miss. Acad. Sci., Keynote address, Hattiesburg, MS.
76. **Saha, S.** (2016) Ethical issues in Biomedical Engineering research and practice. 32<sup>nd</sup> Southern Biomedical Engineering Conference, Shreeport, LA.
77. **Saha, S.** (2017) Dental Ethics. Dental Ethics, Risk Management and Washington State's Prescription Monitoring Program, Eighth Annual Delta Dental Practice Management Course.
78. **Saha, S.** (2018) Ethical Challenges in Biomedical Engineering Research, Keynote address, 34<sup>th</sup> Southern Biomedical Engineering Conference, Charlotte, NC.
79. **Saha, S., and Kashi, A.** (2018) Microwave Sintering of Zirconia Dental Materials, 2018 Annual Meeting Biomedical Engineering Society, Atlanta, Georgia, October 17-20, 2018, poster no FR-119