25th ASEI National Convention

September 17-18, 2010

Double Tree Hotel
Anaheim, CA

INNOVATIVE TECHNOLOGIES FOR A GREENER TOMORROW

ASEI

American Society of Engineers of Indian Origin

With Best Compliments to ASEI
at the 25th Annual Convention

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About ASEI

The American Society of Engineers of Indian Origin (ASEI) was founded in 1983 in Detroit Michigan by Mr. Hari Bindal with the objectives of facilitating networking, recognitions, and technical liaison between India and the USA.

Early in 1983, Mr. Bindal contacted over 50 fellow engineers to obtain their consent and join in his efforts for the start-up of the organization. Bindal conducted a signature campaign and received some 150 signatures. He then organized a meeting on May 5, 1983 at the Farmington Public Library, to form an organization of engineers from India. After thorough discussion, a resolution to form the organization was passed and named the "American Society of Engineers from India (ASEI)". In 1992, the name was changed to "American Society of Engineers of Indian Origin", retaining the acronym as ASEI. Some seed money was collected and an ad-hoc committee was formed to plan a kickoff banquet. The kickoff event was held on September 9, 1983, at the Dearborn Community Center and attracted over 300 people. Over 75 became members that evening. Mr. Bagla, Minister for Economics representing the Embassy of India in Washington DC, gave an arousing inaugural speech.

Mr. Navin Pandya, well known in the Detroit area, wrote the constitution and bylaws of ASEI. This constitution was signed by twenty six (26) members who were present in the May 5, 1983 meeting. These 26 members were called the "Founding Members of ASEI". Mr. Bindal, with help from Dr. Hans Bajaria, got ASEI registered with the IRS under Sec 501(C) (6), and also with the state of Michigan as a Nonprofit Educational Organization. Bindal's home address was also the ASEI address. All day-to-day business of receiving membership forms, responding to letters, and keeping the accounts were handled by Bindal. The organization also started a quarterly "ASEI Newsletter" in the same year.

The ASEI original logo, selected from a logo contest, consisted symbols representing India and the USA, a compass, a handshake, and a slogan "Gyano Sarvopari", encircled with name and year of founding. In 1992, the logo was changed to the current "link of two circles", based on ASEI-NCC Newsletter "Link".

Within two years, ASEI grew to over 400 members. Letters from all over USA, Canada, and some from India came complementing the formation of ASEI. The first convention was held in August 1984 in Michigan. ASEI awards and recognition system started from the first annual convention. In 1985, ASEI presented an honorary membership and ASEI memoranda to the visiting Indian Prime Minister Rajiv Gandhi, as he was an engineer by profession.

Periodic technical seminars were held during the beginning years. Mr.Bindal moved from Detroit to Florida in March 1986. Dedicated members, including Nirdosh and Asha Reddy, Noor Kapadia, and Yogi Anand diligently groomed ASEI over the next eight years and held the annual conventions in Michigan with Bindal's dedicated support.

Mr. Bindal moved to Washington DC in 1988, and started the ASEI National Capital Chapter (NCC) in 1990. ASEI NCC hosted the first out of Detroit, 9th National Convention, in the DC area. After that, the 10th National Convention was held in Huntsville, AL, that celebrated the 10th anniversary in 1993. The souvenir published at this convention included the history of previous ten years of ASEI.

Subsequent conventions were held in other cities such as Atlanta GA (1997), Buffalo, NY (1999), Orlando, FL (2000), and the rest back and forth between Detroit and Washington DC.

In 2004, the Michigan Chapter held one of the largest conventions with over 450 attendees under the able leadership of Mr. Perry Mehta.

About ASEI

Several new chapters, including two student chapters (Akron, OH; and College Park, MD) and one in New Delhi, India, were installed during this period to a total of 12 chapters. In 1996, three new programs were added: ASEI Student Scholarship, Science Fair Award, and Business Plan.

The Cleveland, Ohio Chapter was founded in 2003 with the initiatives of Mr. Jagannath Kottha and Mr. Paramjit Singh. This chapter hosted ASEI 20th and 22nd Annual Conventions in 2003 and 2005, respectively.

In April 2009, a delegation of ASEI met with India's past President, Dr. Abul Kalam, who is an engineer, and presented him with the ASEI memoranda and an Honorary Membership of ASEI.

The Southern California Chapter (SoCal) was founded by Boeing engineers: Sharanpal (Paul) Sikand, Darsh Aggarwal, Jayant Patel, Ravi Kahandal, and Sham Hariram in 2004. The SoCal Chapter hosted the first West coast and a very successful 23rd National Convention in 2006, which attracted over 400 attendees. After the 24th Annual Convention in DC area, ASEI missed two annual conventions, and now the 25th Annual Convention is being hosted by the SoCal Chapter

Following is a list of the ASEI leadership from 1984 to date

Past Chairmen/President of the National Board

Year	Chairman	President
1984	Contstancio Miranda	Jayprakash Shah
1985	Hansraj Bajaria	Yogendra Anand
1986	Navin Pandya	Nuruddin Kapadia
1987	Nuruddin Kapadia	Venkat Rao
1988	Venkat Rao	Nirdosh Reddy
1989	Nirdosh Reddy	S.M. Shahed
1990	S.M. Shahed	Asha Reddy
1991	Asha Reddy	Shailesh Vora
1992	Shailesh Vora	Sudhir Jain
1993	Ram Reddy Nomula	
1994	Chandrika Prasad	
1995	Chandrika Prasad	
1996	Jagdish Agrawal	Shiv K. Jindal
1997	Shiv K. Jindal	Manohar Singh
1998	Manohar Singh	Gajanan Deshmukh
1999	Gajanan Deshmukh	Ravi Singh
2000	Ravi Singh	Dhirendra Saxena
2001	Dhirendra Saxena	Vipin Mehta
2002	Vipin Mehta	Ravi Rout
2003	Vipin Mehta	Ravi Rout
2004	Ravi Rout	Jag Kottha
2005	Jag Kottha	Perry Mehta
2006	Jag Kottha	Perry Mehta
2007	Jag Kottha	
2008	Jag Kottha	
2009	Jag Kottha	
2010	Paul Sikand	

About ASEI

ASEI Mission

Utilize the expertise and resources of the Indo-American community for promoting the following major activities:

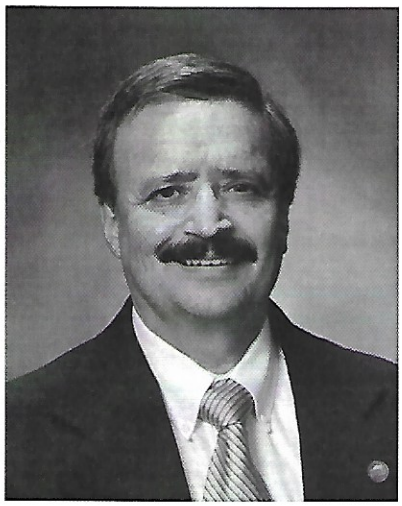
- Networking
- Community Service
- Technology Exchange
- Indo-American business relationship

ASEI Vision statement

"An organization of technical professionals of Indian origin providing a platform for networking, community service, and technology exchange"

Dr. APJ Abdul Kalam, Former President of India being presented with ASEI Memoranda and Honorary Membership by Perry Mehta, Vice Chair and Hari Bindal, ASEI Advisory Board Member and other ASEI members

Message from ASEI Chairman



I am honored to welcome our guests, distinguished speakers, and fellow engineers to the 25th ASEI National Convention and Silver Jubilee celebrations.

This years Convention theme is "Innovative Technologies for a Greener Tomorrow" The theme reflects ASEI's vision and commitment to support technology advancements that reduce the world's dependence on fossil fuels, which have a tremendous impact on the global environmental. The technical papers being presented in this Convention illustrate innovations in the alternate energy fields. We all have a stake in reducing the use of fossil fuels to protect our environment.

ASEI was founded in 1983. In looking back over the past 27 years ASEI has come a long way from being a regional organization to the National level with multiple chapters. ASEI is proud of its achievements in various programs including the following:

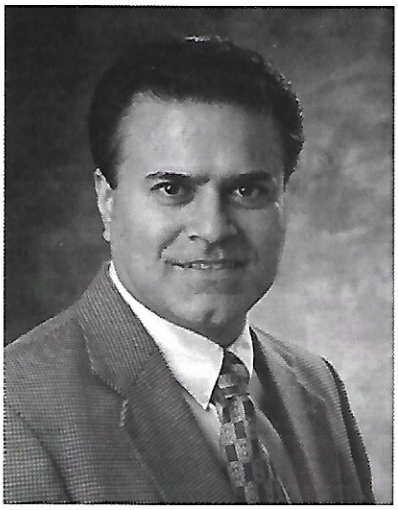
- *The Corporate Excellence Recognition Program (CERP): This program provides a forum for corporations to recognize their employees for leadership and technical skills. Award categories are: Engineering Excellence, Woman Engineer, Young Engineer, Outstanding Achievement, and Service Excellence.*
- *Academic Excellence Scholarship Program: ASEI has awarded thousands of dollars over the years to engineering undergraduate and graduate students across the US. Additionally, we have awarded scholarships to students in India via our association with the SAE.*
- *Technical Symposiums & Networking: Talks on the latest advancements in various technologies are conducted periodically. In 2008, ASEI conducted an international Symposium on Sanitation in the developing countries. These events provide a forum for professional networking.*
- *Cultural events: Annual events to celebrate Diwali, the Indian festival of lights and Christmas are held to provide the members, families and guests an opportunity to have fun and network.*
- *Community Service: ASEI members provide community service in various areas such as mentoring, teaching, planting trees, cleaning the beach, etc.*
- *Recognition Program: Every year at the Convention, ASEI recognizes members in the area of entrepreneurship, engineering excellence and service to ASEI.*

I am sure you will enjoy the Convention. Thanks for your attendance and support.

Sharanpal (Paul) Sikand

Chairman, ASEI National Board

Message from Convention Chair



It is my distinct pleasure and honor to welcome our guests, distinguished speakers, and fellow ASEI members to the 25th Silver Jubilee ASEI National Convention, being held on September 17-18, 2010 in the city of Orange, California. This year's convention is being hosted by the Southern California (SoCal) Chapter of ASEI. The SoCal chapter was founded in 2004 and we are honored to be given the opportunity to host the silver jubilee convention. It has taken a lot of hard work and dedication by the various convention committees and volunteers to make this convention a success.

The theme for the 25th National Convention is "Innovative Technologies for a Greener Tomorrow". ASEI decided on this theme to showcase the surge in green technology innovations coupled with the new global focus on sustainability. Green (or clean) technology is the application of the environmental principles to conserve the natural environment, reduce reliance on fossils fuels, and attain sustainable solutions to societies needs. Green technology solutions have applications in many industries as such the technical papers, plenary sessions, and speeches of this convention will address Renewable Energy, Transportation, Water/Waste Management, Bio Technology, Public Policy, and Business Opportunities. With over 40 international and domestic speakers from industry, academia, and government agencies, the convention will bring together leaders from across the green sector to discuss innovations in green technology.

ASEI is proud of its Corporate Excellence Award and Scholarship programs. This year's nominees and winners have truly demonstrated excellence in their fields. We are honored to have the participation and support from various sponsors including Boeing, NASA, Wipro, FutureNet Group, Siemens, and Raytheon. We are very thankful to our sponsors and local businesses for their financial support.

Finally, thank you for your attendance. I hope you enjoy the Convention.

Aaron Ghuman

President, ASEI SoCal Chapter
2010 ASEI Convention Chair

Message from California Governor

GOVERNOR ARNOLD SCHWARZENEGGER

September 18, 2010

American Society of Engineers of Indian Origin

It is a pleasure to extend my greetings to everyone who has gathered for your twenty-fifth annual National Convention, "Innovative Technologies for a Greener Tomorrow."

I commend your organization for the dedication you have shown to furthering educational and networking opportunities within the community. California takes pride in our cultural and ethnic diversity, and groups like yours help us encourage excellence and achievement in the lives of all Americans. This event is an important gathering of successful professionals and well-deserving students. I am sure great ideas and lasting connections will come out of this meeting.

The organizers and sponsors deserve a big hand for all the hard work, time and resources they have put into the planning of this event.

Congratulations on organizing another successful convention and please accept my best wishes for every future endeavor.

Sincerely,

Arnold Schwarzenegger

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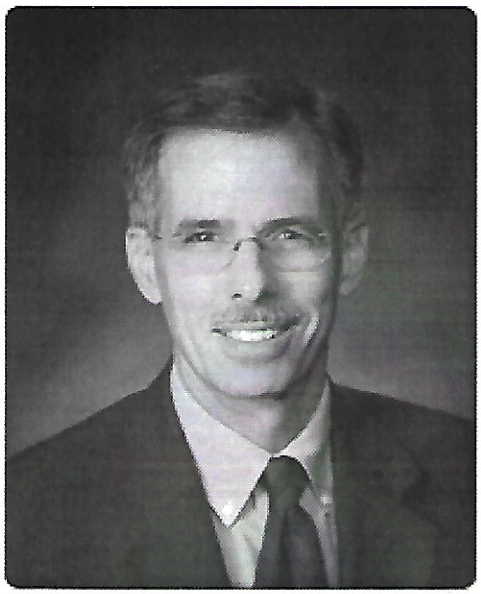
Inaugural Keynote Speaker



Dr. John J. Tracy is chief technology officer for The Boeing Company and senior vice president of Engineering, Operations & Technology, responsible for defining and implementing corporate strategies for attaining and maintaining technical and functional excellence across the enterprise. He reports to Boeing Chairman, President and CEO Jim McNerney.

In addition to serving on the company's Executive Council, he oversees the development and implementation of the enterprise technology investment strategy and provides strategic direction to several functions and business organizations comprising more than 100,000 employees. These include the Engineering, Operations, and Supplier Management functions, and also the Information Technology, Enterprise Technology Strategy, Research and Technology, Test & Evaluation, Intellectual Property Management, and Environment, Health & Safety organizations.

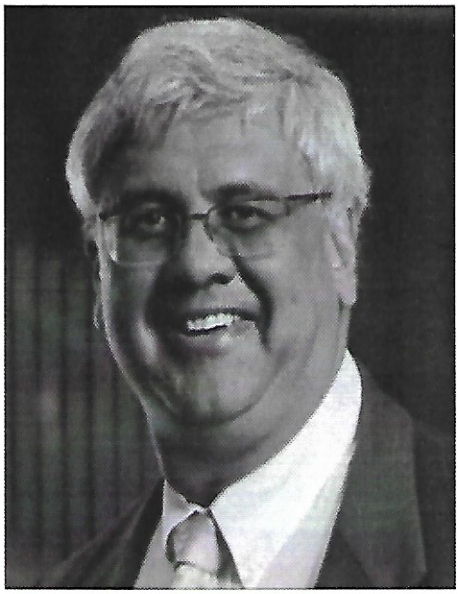
Tracy is a Fellow of the American Society of Mechanical Engineers (ASME) and the past chair of the ASME. He is also a Fellow of the American Institute of Aeronautics and Astronautics (AIAA) and the Royal Aeronautical Society, and was named 2006 Hispanic Engineer of the Year by the Hispanic Engineer National Achievement Awards Corporation (HENAAC), one of the Most Important Hispanics in Technology by Hispanic Engineer & Information Technology magazine, and inducted into the HENAAC Hall of Fame in 2009.

He has served as an editorial board member for the AIAA Journal, the Journal of Thin-Walled Structures, and the Journal of Computer Modeling and Simulation in Engineering. He has authored over 30 publications in the areas of composite structural mechanics, launch vehicle structures, smart structures, and aging aircraft. He also serves on the Board of Trustees for the Illinois Institute of Technology and the Chicago Museum of Science and Industry.

Tracy received a PhD in Engineering (1987) from the University of California-Irvine, and an MS and BS in Physics respectively from California State University-Los Angeles (1981) and California State University-Dominguez Hills (1976).

He is married to Katherine Katsumata Tracy, and they have two grown children: Scott Tracy and Wendy MacGinnis.

Inaugural Guest Speaker



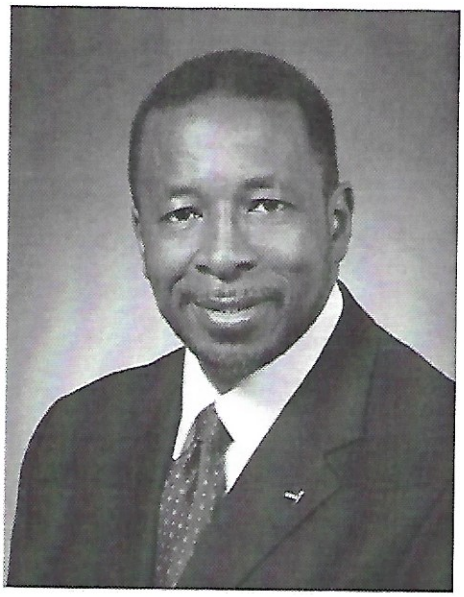
Dr. S. Shankar Sastry , Dean of the College of Engineering, Professor of Electrical Engineering and Computer Science, Professor of Bioengineering, Nippon Electronics Corporation (NEC) Distinguished Professorship in the College of Engineering and the Walter A. Haas School of Business, Director, Richard C. Blum Center for Developing Economies

Dr. Sastry received his B.Tech. from the Indian Institute of Technology, Bombay, 1977, a M.S. in EECS, M.A. in Mathematics and Ph.D. in EECS from UC Berkeley, 1979, 1980, and 1981 respectively. Dr. Sastry is currently dean of the College of Engineering. He was formerly the Director of CITRIS (Center for Information Technology Research in the Interest of Society) and the Banatao Institute @ CITRIS Berkeley. He served as chair of the EECS department from January, 2001 through June 2004. In 2000, he served as Director of the Information Technology Office at DARPA. From 1996-1999, he was the Director of the Electronics Research Laboratory at Berkeley, an organized research unit on the Berkeley campus conducting research in computer sciences and all aspects of electrical engineering.

He is the NEC Distinguished Professor of Electrical Engineering and Computer Sciences and holds faculty appointments in the Departments of Bioengineering,

EECS and Mechanical Engineering. Prior to joining the EECS faculty in 1983 he was a professor at MIT.

Luncheon Guest Speaker



Dr. Woodrow Whitlow Jr. is Director of the National Aeronautics and Space Administration (NASA) John H. Glenn Research Center at Lewis Field in Cleveland, Ohio. Appointed to this position effective December 25, 2005, he is responsible for planning, organizing and directing the activities required to accomplish the missions assigned to the center.

From September 2003 through December 2005, Dr. Whitlow served as the Deputy Director of the NASA John F. Kennedy Space Center. There his duties included assisting the director in determining and implementing center policy and in managing and implementing the center's missions and agency program responsibilities in the areas of processing, launch, and recovery of launch vehicles; processing of spacecraft; and acquisition of launch services. Prior to this appointment as Deputy Director, he served as the Director of Research and Technology at the Glenn Research Center.

Dr. Whitlow began his professional career in 1979 as a research scientist at the NASA Langley Research Center, Hampton, Virginia. He assumed various positions of increasing responsibility before moving to the Glenn Research Center in 1998. In

1994, he served as Director of the Critical Technologies Division, Office of Aeronautics, at NASA Headquarters.

Dr. Whitlow earned his Bachelor of Science, Master of Science and Doctor of Philosophy degrees in Aeronautics and Astronautics from the Massachusetts Institute of Technology. He has written nearly 40 technical papers, most in the areas of unsteady transonic flow and aeroelasticity.

Dr. Whitlow has received numerous awards, including U.S. Black Engineer of the Year in Government, NASA Exceptional Service Honor Medal, NASA Equal Opportunity Honor Medal, the (British) Institution of Mechanical Engineers William Sweet Smith Prize and the Presidential Rank of Meritorious Executive. The American Institute of Aeronautics and Astronautics named him an associate fellow in 1993.

Dr. Whitlow and his wife have two daughters and two granddaughters.

Banquet Keynote Speaker

Mr. Uday Yadav, is executive vice president – Eaton Business System, for Eaton Corporation, an $11.9 billion global diversified power management company.Yadav oversees the Eaton Business System as well as the supply chain; Quality, Environment, Health and Safety, Flight Operations, and Lean manufacturing functions for the enterprise.Most recently, Yadav was the senior vice president and general manager – Hydraulics, for the Asia Pacific region.

Yadav joined Eaton in 1994 and served as vice president – Supply Chain Management for the Fluid Power Group, director and general manager of Eaton's Global Hose Division and local managing director for Eaton in India. In addition, he has held leadership positions in the Automotive Fluid Connectors business and the former Aeroquip's European Operations.

Prior to joining Eaton, Yadav worked with Lucas Engineering and Systems in the United Kingdom.

He holds a double degree with honors in engineering and business from Nottingham Trent University, United Kingdom. Yadav is based in Cleveland, Ohio.

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Eaton has approximately 70,000 employees and sells products to customers in more than 150 countries. For more information, visit www.eaton.com.

Banquet Guest Speaker

Dr. Siddharth Dasgupta is Managing Director of NSF Center for Chemical Innovation: Solar Fuels at California Institute of Technology. This is a consortium of 12 universities, including MIT & Stanford, that is focusing on converting solar energy to chemical fuels by splitting water into hydrogen and oxygen using novel catalysts. These fuels can be recombined in a fuel cell to get electricity.

He got his BS and MS degrees in chemistry at Indian Institute of Technology in Kanpur, and his PhD in chemistry from Princeton, and an executive MBA from UCLA. He first worked as a post-doctoral scholar at AT&T Bell Labs and then moved to Caltech in 1987, where he has remained in various capacities.

Prior to his current position, Siddharth was the Associate Director of NSF Center for Science and Engineering of Materials (CSEM), AND NSF Center for Neuromorphic Systems Engineering (CNSE) at Caltech. He was a member of an NSF panel studying Engineering Research Centers programs in China, Korea, Japan, Germany, Belgium, UK, and Ireland. He is also involved in alumni affairs for his graduate alma mater Princeton, and his undergraduate alma mater IIT Kanpur.

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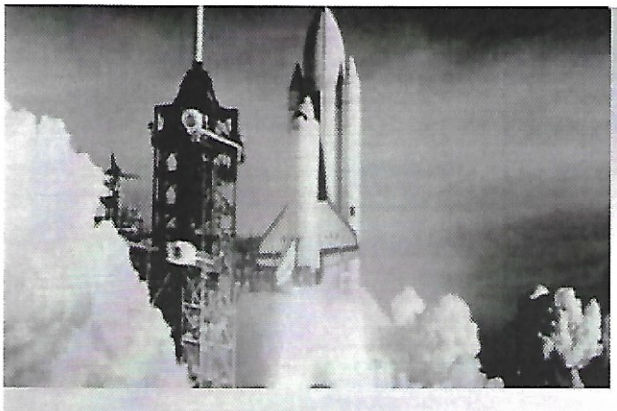

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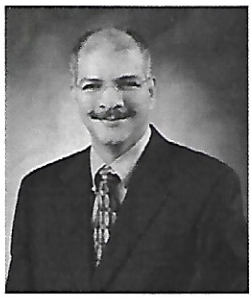
Technical Session Speakers

Track # 1: RENEWABLE ENERGY



Mr. Ashutosh Misra has over 12 years of working experience in the photovoltaic (PV) industry covering all aspects of thin-film solar technology and PV systems. His solar experience includes research and development, technology development, commercialization, high volume manufacturing, finance including capital sourcing in private and public market, market development domestic and international and sales management. Mr. Misra currently serves as Senior Vice President of Corporate Development at Ascent Solar Technologies (NASDAQ: ASTI). Mr. Misra also served as Executive Vice President at ITN Energy Systems (ITN), parent company of Ascent Solar. His paper is titled ***"Overview of Solar Photovoltaic, Market and Applications".***

Dr. Fabian Mueller, is a Senior Scientist leading the sustainable energy research at the University of California's advanced Power and Energy Program. His research focuses on securing California energy supplies from renewable, evaluating electric reliability, grid synchronization dynamics, and cost minimization. His major research interest is to understand how the current electric infrastructure will impact the increased renewables and how distributed building energy resources can be better utilized to support the electric power system with minimal occupancy impacts. His talk is titled ***"Potential Impacts of Renewable Intermittency on the Electric Power System Operation and Costs".***

Dr. Rama Subramanian is a Chemical Engineer at General Electric Global Research Center (GE GRC). He has a Ph.D. in Chemical Engineering from the University of Minnesota and a B. Tech in Chemical Engineering from the Indian Institute of Technology, Kharagpur. He has over 6 years of R&D experience in coal and biomass gasification, catalytic fuel conversion and catalytic reforming. Dr. Subramanian has extensive experience in the design, operation, and optimization of various bench-scale test facilities and in experimental data collection and analysis. He is currently the PI for a $1MM DOE project on coal biomass co gasification. He is the author of more than 15 peer-reviewed and GE internal technical publications and one patent and 6 patent applications. His paper is titled "***Product Characterization for Entrained Flow Coal/Biomass Co-Gasification***".

Dr. Ajay Kothari is President and Founder of Astrox Corporation, an Aerospace R&D company located in Washington DC. He has been Principal Investigator or Program Manager on more than 25 contracts from Air Force AFRL and ASC, Army, Navy, NASA LaRC, MSFC, GRC, GSFC focused on rocket and/or hypersonic vehicle designs. He was a National Merit Scholar and has over 35 publications. He has been a pioneer in developing the Inward Turning Hypersonic Vehicles which will be able to go to Low Earth Orbit. His design of hypersonic, Rocket Based Combined Cycle (RBCC) vehicle has recently been prominently featured in the Technology Horizons report of US Air Force about its future plans of next 10-20 years as one of the items the country should pursue. His talk is titled "***Space Tourism Using Reusable Rocket and Hypersonic Vehicles for Access-to-Space Architecture".***

Technical Session Speakers

Mr. Ravi kumar is currently the Director of Process Engineering at Fluor Corporation, Irvine, CA . He has several years of process engineering experience with over 30 years of gasification and syngas experience. He is a technical advisor for several coal and heavy oil integrated gasification and combined cycle projects. Ravi supervised the front-end configuration studies and detailed process design for cogeneration plants and expansion for major refineries. He has written several papers on gasification and mixed alcohols synthesis. He has also received patents. He is a registered professional chemical engineer in California, USA. He graduated from University of Madras with a B.Tech in Chem. Engg. and has a MS degree from Clarkson University, Potsdam, NY. His talk is titled ***"What is the future for energy".***

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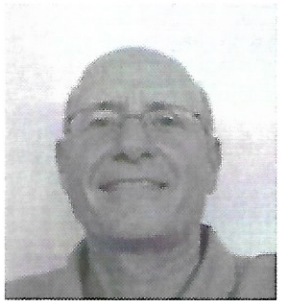
Mr. Peter Nick, PE ,MSChE has been a practicing chemical engineer for 35 years and is a Principal with the startup development company-"Renewable Energy Technologies" a California Corporation.. He has worked for numerous companies and clients worldwide involved in energy production and development, fuels refining and research, supply chain implementation, engineering & construction, software and information database development. Along the way he managed to pick up a broad understanding of the technical, economic, political and business sides of the world energy sectors. His specialties involve thermodynamics, property analysis, control systems, simulation, modeling and process development. Pete is a registered PE in the state of California and is currently employed by Worley Parsons Ltd in Arcadia CA. He is also a principal partner (of 4) in a startup development company - Renewable Energy Technologies - a California corporation. His paper is tilted *"**Redevelopment of a Proven MSW to Syngas Scheme – The Phreg Process**".*



Mr. Brad Bullington is currently the Principal Process Engineer in the Power Division of Fluor Corporation in Irvine. His prior experience was as Principal Process Engineer for the Oil, Gas Treating and Nuclear Division of Fluor. He has over 37 years of experience in process engineering and design of grass roots facilities and has served as Fluor's consultant at many of the complex petrochemical facilities around the globe. He holds a BS Degree in Chemical Engineering, UCLA and an MBA from California State University at Fullerton. He is a Registered Engineer in the state of California. His paper is titled *"**Process Control and Design Issues in a Concentrated Solar Power plant**".*

Track # 2:TRANSPORTATION EXCELLENCE

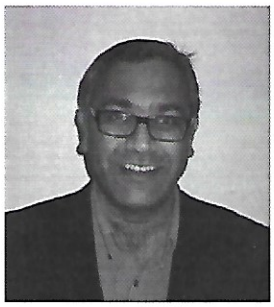
Dr. Neel Sirosh is currently the **Chief Technology Officer of Quantum Technologies Inc.**, based in Irvine, California. Dr. Sirosh has been intimately involved in the alternative energy industry for 20 years, in various capacities encompassing R&D, product commercialization etc.. He led the development of solar electric generation systems and other renewable energy-related projects at Quantum, for the past 4 years. Dr. Sirosh holds 6 US patents related to energy storage and alternative energy systems. He has made in excess of 32 presentations/papers in international conferences and journals and contributed to two books on energy. He holds a Ph.D. in Engineering from the University of Calgary, Canada, MBA from University of California, in Irvine and BE (Honors) from the University of Madras, India. His paper is tilted ***"Manufacturing and Deployment of Solar PV in California".***

Technical Session Speakers

Mr. Nitin R. Patel received the B.Sc. degree from the University of Poona, India in 1991, the M.S. degree in Electrical Engineering from the University of Tennessee, Knoxville in 1996, and the M.S. degree in Mechanical Engineering from the University of Wisconsin, Madison in 2004. Since 1997 he has been with Advanced Technology Center, General Motors, Torrance, CA where he is currently, as a Project Design Engineer, involved in developing AC Drive controls for propulsion systems for FCEV/HEV applications. He has authored several publications in IEEE conferences and journals. He holds 22 US patents. He also was awarded Two General Motors Vice President's (Charles L. McCuen) awards. His paper is tiltled ***"The Electrification of Automobile".***

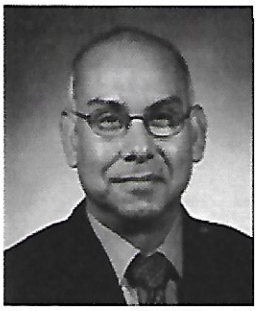
Ms. Priya Playle got her MS from University of Michigan in Mechanical engineering / automotive systems engineering and a BS in Mechanical Engineering from University of Illinois. Over the course of 15 years in the automotive industry, Priya has gained significant experience in powertrain and fuel cooling and chassis system design and development for both conventional and alternative powertrain vehicles. In her present role as partner at P3 North America, Priya has spearheaded and supported several projects at various automotive OEMs and Tier 1's to better define their alternative powertrain product portfolios, organizational structures, development processes and validation plans including project setup and management, prototype build management, supplier management, design to cost and cost reduction programs. Her talk is titled "***Cooperation Management: An Essential Enabler for Green Technology Development".***

Dr. Ravi Tripuraneni is currently the President/CEO of Aviation Technologies International Inc., an advanced, clean-technology, aircraft design and manufacturing start-up based out of Orange, California. He spearheaded the design of RT-700, a very economical, high-performance, clean technology, 7-seat business aircraft for the U.S and Global markets.
Dr. Tripuraneni has been deeply involved in the aviation industry for over three decades. After completing his Engineering and MBA degrees in India, he moved to the U.S to complete his Ph.D. in Marketing. He has worked as an IT consultant for Fortune 500 firms in the U.S.
Dr. Tripuraneni has taught marketing and entrepreneurship courses at various universities in the CSU and UC system. His paper is titled ***"Innovation and Integration of Design, Engine and Fuels, and Avionics in Piston Multi-engine Business Aircraft"***



Dharmendra Patel is the **Project Manager for the Boeing X-48C**, a research aircraft program investigating and demonstrating flight control technologies for Blended Wing Body (BWB) concepts. Mr. Patel has a Bachelor of Science degree in Aerospace Engineering from the University of Missouri-Rolla and has been with the Boeing company for over 15 years. As a member of the BWB design team, he has been involved in multiple stages of the concept's evolution from paper studies to wind tunnel and flight testing. In addition to the BWB project, Mr. Patel has been also participated in numerous other research and production programs such as the 787, 747-8, and the 747-Large Cargo Freighter. His paper is titled ***"Blended Wing Body design from concept to flight research - A path towards greater efficiency in aviation transport"***

Technical Session Speakers



Dr. Ajay Misra, a member of the Senior Executive Service, is Chief of the Structures an Materials Division in the Research and Technology Directorate at NASA Glenn Research Cente in Cleveland, Ohio. In this position, Dr. Misra has the responsibility for planning, advocating coordinating, organizing, directing and supervising all phases of Division research. Prior to his current position, Dr. Misra was Deputy Chief of the Structures and Materials Division, Chief o the Ceramics Branch and managed numerous programs.Dr. Misra has also served as the Acting Program Director for the Fundamental Aeronautics Program in the Aeronautics Research Mission Directorate. Dr. Misra has a Ph.D. in materials science and engineering from the University of California at Berkeley and an MBA from Cleveland State University. He has published over 60 papers in referred journals and conference proceedings on topics related to high temperature materials, space power system, and chemical thermodynamics. His talk is titled **"Advanced materials and structures for green aviation"**.

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Dr. Abhishek Trivedi is a technical specialist with Autodesk Inc. He is focused on Autodesk's simulation business in western half of US and Canada. Dr.Trivedi has over seven years of experience with companies such as Solidworks (Dassault Systems) and French oil major Total SA. He has published several papers on related topics in journals of international reputation. He is also a recipient of various awards and fellowships.*His paper is titled* ***"Role of simulation tools in product work flow of a sustainable digital prototype".***

Track # 3: WATER, WASTE MGMT, AND BIO-TECH

Mr. Arthur H Krugler, of Krugler Engineering Group, Inc. is a Professional Engineer, Chem. E & M.E., with a degree in Chemical Engineering from the University of Wisconsin. He currently is registered to practice in 6 states. Industrial experience includes 25 years of Chemical Industry operations, and 30 years in design and construction of Chemical, Petroleum and Power Plants, especially Geothermal Power. While in charge of engineering and construction at the Ben Holt Co. in Pasadena, plants were designed and constructed for California, Nevada, Utah, Texas, Indonesia and The Philippines. Numerous studies and designs were performed for facilities worldwide. For more information on the author, visit www.kruglerengineeringgroup.com. His talk is titled ***"Steam water separators- 35 years of development"***

Dr. Ashok Mulchandani is a Professor in the Department of Chemical and Environmental Engineering at the University of California and the Editor-in-Chief of the Applied Biochemistry and Biotechnology journal. He is elected Fellow of the American Association for Advancement of Science and the American Institute for Medical and Biological Engineering. He has received several honors and awards including Research Initiation Award from the national Science Foundation and Faculty Participation Award from the Department of Energy.Prof. Mulchandani's primary research interest is in the broad area of "Bio-Nanotechnology". He is internationally recognized as a leader in the development of biosensors for applications in detection of biowarfare and chemical warfare agents for homeland security. Prof. Mulchandani has published more than 200 journal publications, 10 book chapters, 12 conference proceedings articles and over 200 conference abstracts. He has co-edited four textbooks. His talk is titled ***"Biotechnology: Applications to Environmental Remediation".***

Technical Session Speakers

Dr. William "Bill" Cooper is a Professor of Civil and Environmental Engineering and Director of the Urban Water Research Center at UC Irvine. Through the 80's and 90's Dr. Cooper served as Director of the Drinking Water Research Center at Florida International University, Miami, Florida, and as associate professor in the Department of Chemistry. In 1997, he was appointed Chair of the Department of Chemistry at the University of North Carolina, Wilmington, where, in addition, he was affiliated with the Center for Marine Science for six years.His research interests have included analytical chemistry of chlorine residuals, disinfection byproducts and trace organics analysis. More recently, Cooper has focused on carbon cycling in coastal oceans and the application of free radical chemistry in advanced oxidation processes (AOPs). As a result of his experience in free radical chemistry, he serves as a consultant to the International Atomic Energy Agency and is involved in several international cooperative research projects. Dr. Cooper's talk is titled ***"Free Radical Treatment of Pharmaceuticals".***

Mr. Hanoz Santoke is a fourth-year graduate student at the University of California, Irvine, studying environmental engineering under the direction of Professor William Cooper. His research focuses on pharmaceutical compounds in the environment, which have been detected at low concentrations in wastewater, rivers, lakes, and even treated drinking water. Specifically, he has focused on the degradation of these compounds by free radicals such as the hydroxyl radical and singlet oxygen, and the photochemical fate in sunlight. He is a graduate of the University of California, Los Angeles, where he received a B.S. degree in chemical engineering in 2006. Hanoz received the Achievement Rewards for College Scientists Foundation scholarship for excellence in research.. His talk is titled ***"Photochemical Fate of Antidepressant Pharmaceuticals in Simulated Natural Waters".***

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Mr. Hardat Khublall P.E & **Mr.David Philips**, P.E., Orange County Sanitation District, **Mr. Steven Agor**, P.E., Tetra Tech, Inc. and **Mr. Jim Cathcart**, P.E., HDR are at the Orange County Sanitation District. Their talk is titled "***SARI Preserves Water Quality for Orange County and Prevents Severe Economic Impacts To Riverside / San Bernadino Counties".***

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Mr. Hersh V. Kshetry is a Process Engineer at Parsons Corporation and has been responsible for the engineering execution of several projects including the following:Visalia Water Conservation Plant Upgrade, West Basin Municipal Water District Feasibility Study. He holds an M.S. Degree in Engineering and Project Management from UC Berkeley and a B.S. degree in Chemical & Biomolecular Engineering from Cornell University. His Paper is tilted "***Technologies for Enhanced Biomass Energy Recovery at Wastewater Treatment Plants"***.

Technical Session Speakers

Dr. Madan L. Arora, Ph.D., P.E., BCEE. Since 1998, Dr. Madan Arora has served as Parsons' Senior Project Manager and Technical Director. His responsibilities involve the technical direction of wastewater and water projects, including project management, project reviews, assistance to the project teams during construction management. Madan has 40 years of extensive experience in different facets of wastewater treatment and sanitary engineering. Madan has worked on projects involving secondary, and tertiary treatment of wastewater with dual media or mono-media filters and other proprietary filter designs. Dr. Arora graduated with B.Sc. in Civil Engineering from Punjab Univ. in India and obtained his M.S. and Ph.D degrees in Environmental Engineering from Iowa State Univ. Ames,Iowa. Dr. Arora has authored over 50 papers in the area of water and wastewater treatment. His Paper is tilted ***"Sustainable Approaches in Wastewater Treatment Plant Design and Operation".***

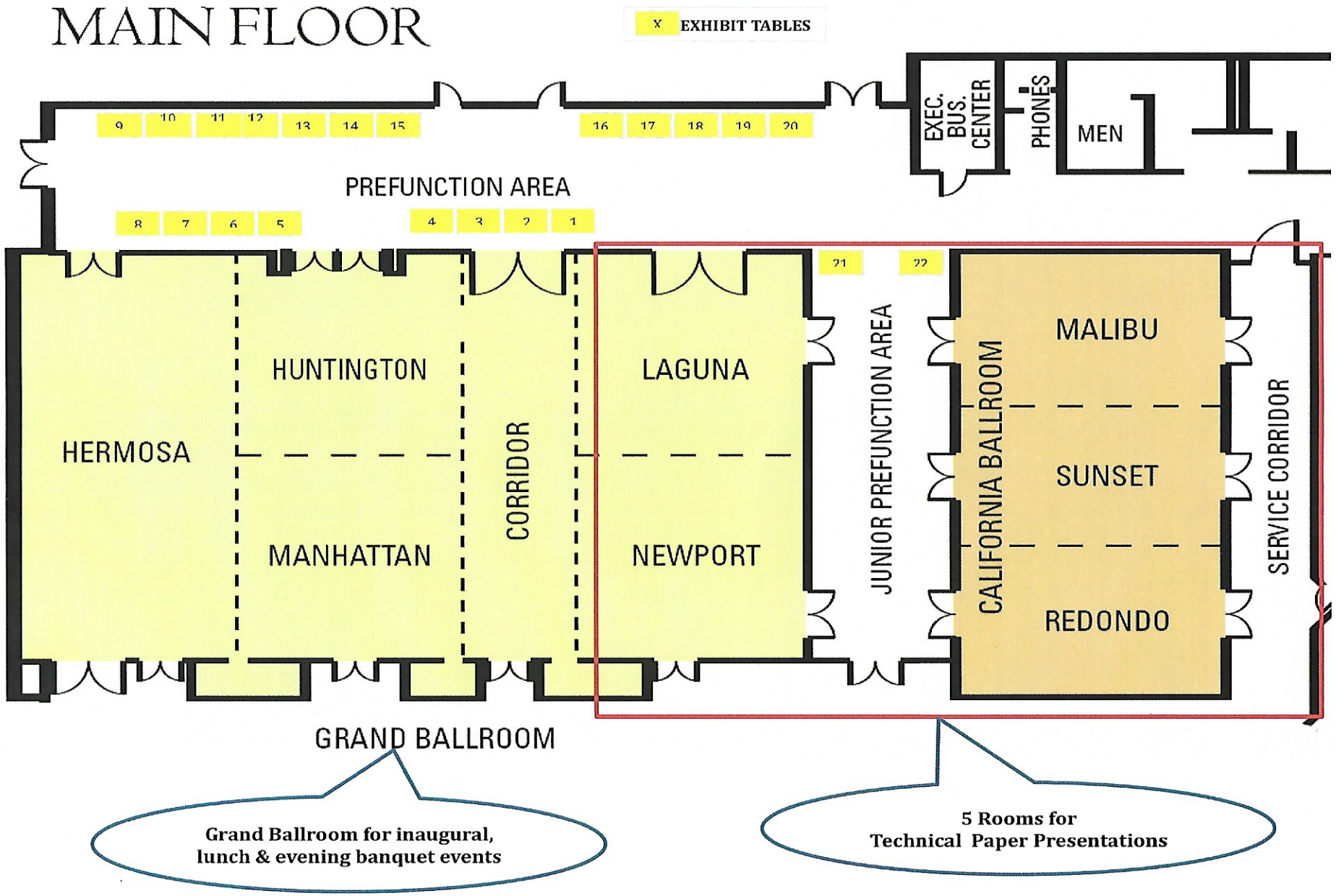
Mr. Thakral is currently a Senior VP at Parsons Corporation and has nearly 40 years of dedicated award winning environmental engineering experience in all phases of wastewater, water, and recycled water engineering. His technical experience encompasses planning, design, construction management, design-build, project management; and large program management of a variety of wastewater, recycled water, and energy recovery projects. He has been involved with several biomass energy recovery projects using sewage sludge, manure, and food waste Prior to coming to US in 1984, Mr. Thakral served with World Bank as consultant on UNDP Resource Recovery Project. From 1984 through 1986, he worked for UC Cincinnati/EPA as a Research Associate at the Test & Evaluation Facility, Cincinnati. Mr. Thakral is leading Parsons' efforts towards the technological innovations for water, wastewater and recycled systems. His Paper is tilted ***"Technologies for Enhanced Biomass Energy Recovery at Wastewater Treatment Plants".***

Track # 4: PUBLIC POLICY

Mr. Andre Ramirez currently works in a **Strategy & Planning rotational position at Southern California Edison**. He has worked on operations, marketing and business strategies for the coming wave of electric vehicles and process improvement for rate design. Prior to joining SCE, Andre led or consulted on several projects on the supply and demand side of the energy space including technological competitive analysis, go to market strategies, and energy efficiency program development. Andre holds an MBA from MIT Sloan and B.A. Economics, B.A Political Science from UC Irvine. His talk is titled ***Electric Vehicle policy as a result of the California Public Utilities Commission's ongoing Rulemaking process.***

Mr. Nikhil Jain's expertise revolves around building businesses and teams from just an idea phase with a specialization in internet/web technologies, software and green businesses. Nikhil brings diverse experience in various industries in several roles including management consultant, business advisor and C-level positions. Nikhil has held the position of COO in a business advisory and management consulting firm. He is the Founder of OnGreen, Inc., which is on its way to becoming the world's largest clearinghouse for greentech and is also a General Partner at Blue Marble Ventures. Nikhil has a BS in Electrical Engineering and an MBA in Finance from USC's Marshall School of Business. His talk is titled "***VC's point of view of Green Energy - key success factors that Engineers can help with".***

Convention Venue Layout



Convention Schedule

ROOM LEGEND		FOYER AREA		NEWPORT ROOM		SUNSET ROOM
		GRAND BALLROOM		MALIBU ROOM		REDONDO ROOM
				LAGUNA ROOM		

TIME		Friday, September 17, 2010			Saturday, September 18, 2010					
7:30 AM	8:20 AM				Registration & Exhibit Tables	Continental Breakfast				
8:20 AM	8:30 AM					Welcome Address - Paul Sikand (ASEI Chair)				
8:30 AM	9:15 AM					Inaugural Speaker - Dr. John Tracy				
9:15 AM	9:45 AM					Guest Speaker - Dr. Shankar Sastry				
9:45 AM	10:00 AM					BREAK				
10:00 AM	10:30 AM					Technical Session #1	Technical Session #2	Technical Session #3	Technical Session #4	Technical Session #5
10:30 AM	11:00 AM									
11:00 AM	11:30 AM									
11:30 AM	12:00 PM									
12:00 PM	1:15 PM					Lunch & Scholarship Winner Annoucements				
1:15 PM	1:45 PM					Luncheon Guest Speaker - Dr. Woodrow Whitlow				
1:45 PM	2:00 PM					BREAK				
2:00 PM	2:30 PM					Technical Session #1	Technical Session #2	Technical Session #3	Technical Session #4	Technical Session #5
2:30 PM	3:00 PM									
3:00 PM	3:30 PM									
3:30 PM	3:45 PM					BREAK				
3:45 PM	5:00 PM					Panel Session				
5:00 PM	5:30 PM					NASA Business Opportunities				
5:30 PM	6:00 PM	Registration				Break				
6:00 PM	6:30 PM					Social Hour and Snacks, No-Host Bar				
6:30 PM	7:00 PM									
7:00 PM	7:45 PM		Networking/ Welcome Address			State of ASEI/Awards/Sankara				
7:45 PM	8:15 PM					Keynote Address - Mr. Uday Yadav				
8:15 PM	9:00 PM		Dinner			Dinner Banquet				
9:00 PM	9:30 PM					Banquet Special Guest - Dr. Siddharth Dasgupta				
9:30 PM	9:35 PM					Vote of Thanks				
9:35 PM	10:45 PM					Entertainment Program				
10:45 PM	10:50 PM					Closing Remarks				

Technical Sessions

Technical Program Chairman : Peter C Iyer, P.E.- Co-Chair: J. Patel

Saturday September 18, 2010

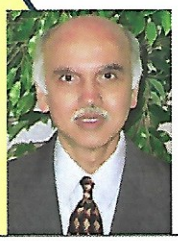
Track 1: Renewable Energy		
Location: Room 01	Session Chair: Abhishek Pednekar	Co-Chairs: Peter Nick
Time	**Author**	**Session**
10:00 – 10:30	Mr. Ashutosh Misra	Overview of Solar Photovoltaic, Market and Applications
10:30 – 11:00	Mr. Brad Bullington	Process Control and Design Issues in a Concentrated Solar Power plant
11:00 – 11:30	Dr. R. Subramanian	Product Characterization for Entrained Flow Coal/Biomass Co-Gasification
11:30 – 12:00	Dr. Neel Sirosh	Manufacturing and Deployment of Solar PV in California
	Lunch and Awards	
2:00 – 2:30	Mr. Arthur Kluglar	Steam Water Separators 35 years of development
2:30 – 3:00	Dr. Fabian Mueller	Potential Impacts of Renewable Intermittency on the Electric Power System Operation and Costs
3:00 – 3:30	Mr. Peter Nick	Redevelopment of a Proven MSW to Syngas Scheme – The Phreg Process
	Break	
3:45 – 5:00	Round Table – See Next Page	
Track 2: Transportation Excellence		
Location: Room 02	Session Chair: Srihari Gangaraj	Co-chairs:
Time	**Author**	**Session**
10:00 – 10:30	Ms. Priya Playle	Corporation Management: An Essential for Green Technology Development
10:30 – 11:00	Dr. Ajay K. Mishra	Advanced Materials and Structures for Green Aviation
11:00 – 11:30	Dr. Abhishek Trivedi	Role of simulation tools in product work flow of a sustainable digital prototype
11:30 – 12:00	Dr. Ajay P. Kothari	Space Tourism using Rockets and Hypersonic Vehicles for Access-to-Space Architecture
	Lunch and Awards	
2:00 – 2:30	Mr. Nitin Kumar Patel	The Electrification of Automobile
2:30 – 3:00	Dharmendra Patel	Blended Wing Body design from concept to flight research - A path towards greater efficiency in aviation transport
3:00 – 3:30	Dr. Ravi Tripuraneni	Innovation and Integration of Design, Engine and Fuels, and Avionics in Piston Multi-engine Business Aircraft
	Break	
3:45 – 5:00	Round Table - See Next Page	
Track 3: Water, Waste Mgmt & Bio-technology		
Location: Room 03	Session Chair: Vijay Trehan	Co-chairs: Surrender Thakral, Kupp Sridhar
Time	**Auth:or**	**Session**
10:00 – 10:30	Mr. H. Khublall/ D. Phillips	SARI preserves Water Quality for Orange County and Prevents Severe Shortage Impacts
10:30 – 11:00	Dr. William Cooper	Photochemical Fate and Free Radical Treatment of Pharmaceuticals
11:00 – 11:30	Mr. Surendra Thakral	Biomass and Other Renewable Energy Sources at Wastewater Treatment Facilities – Self Supporting and Exporting?
11:30 – 12:00	Mr. Hanoz Santoke	Photochemical Fate of Antidepressant Pharmaceuticals in Simulated Natural Waters
	Lunch and Awards	
2:00 – 2:30	Dr. Ashok Mulchndani	BIOTECHNOLOGY: Applications to Environmental Remediation
2:30- 3:00	Mr. Hersh Kshetry	Technologies for Enhanced Biomass Energy Recovery at Wastewater Treatment Plants
3:00- 3:30	Dr. Madan Arora	Sustainable Approaches in Wastewater Treatment Plant Design and Operation
	Break	
3:45 – 5:00	Round Table - See Next Page	
Track 4: Public Policy		
Location: Room 04	Session Chair: Anita Sengupta	Co-chair: Krish Krishnamurthy
Time	Author	Session
10:00–10:30	Mr. Andre Ramirez	Electric Vehicle policy as a result of the California Public Utilities Commission's ongoing Rulemaking process
10:30–11:00	Dr. Gani Ganipathi	JPL's role in the New Energy Marketplace (Solar and beyond)
11:00–11:30	Mr. Harry Cikanek	NASA Glenn Space Technology-Advances that Benefit Sustainable Energy and the Environment
11:30–12:00	Dr Anita Sengupta	Space Based Methods to Measure Green House Gases from the Planet's Top Emitters
	Lunch and Awards	
2:00 – 2:30	Dr. Jean-Daniel Saphores	Alternative Fuel Automobiles: Promises and Barriers
2:30 - 3:00	Dr Sasi Pillay	Green Information Technology: What is it and How to Get there?
3:00 -3:30	Dr. Joao Teixeira	Climate Changes Prediction
	Break	
3:45 – 5:00	Round Table - See Next Page	
Track 5: Business Opportunities		
Location: Room 05	Session Chair: Krish Krishnamurthy	Co-chair: Anita Sengupta
Time	Author	Session
10:00–10:30	Mr. Nikhil R. Jain	VC's point of view of Green Energy - key success factors that Engineers can help with.
10:30–11:00	Mr. Tim Cherry	Sustainability- Business Opportunities and Best Practices
11:00–11:30	Dr & Mrs. Arunachalam	Smart Grid Basics and Related Opportunities
11:30–12:00	Dr. Chetan Deshpande	Biogas in India: Opportunities and challenges
	Lunch and Awards	
2:00 – 2:30	Dr. Ramesh, Dr. Johari, Dr. Osorno	Energy Research, Sustainability and the Smart Grid
2:30 - 3:00	Mr. Rajan Kasetty	Sustainable, Renewable, Distributed Power Generation
3:00- 3:30	Dr. Surya Prakash	Beyond Oil and Gas: The Methanol Economy
	Break	
3:45 – 5:00	Round Table - See Next Page	

Panel Discussion

Time	Presenter	Discussion Topics
3:00 – 3:10	Anita Sengupta	Introduction of Panel Members and Discussion Topics
3:10 – 3:30	Panel Discussion Topic 1	'Sustainability' economics in the private sector
3:30 – 3:50	Panel Discussion Topic 2	Carbon tax and/or credits to achieve carbon emission reductions
3:50 – 4:10	Panel Discussion Topic 3	Combating Climate Change in the Developing World and Empowering local communities through sustainable local solutions
4:10 – 4:30	Panel Q&A	Audience Questions to panel

Dr. Joao Teixeira

Mr. Chris Smith



Dr. Surya Prakash

Mr. Harry Cikanek

Panel Discussion

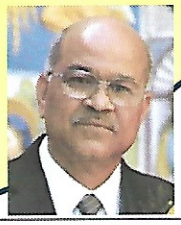
Public Policies and Business Opportunities for a Greener Tomorrow

Saturday, September 18, 2010 -3:00- 4:30 PM

Organizer/Moderator: Dr. Anita Sengupta, Jet Propulsion Laboratory

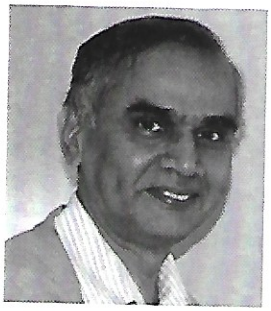
Dr. Anita Sengupta

Dr. Rajit Gadh



Mr. R. Rajan Kasetty

Technical Session Speakers



Dr. J. Srinavasan obtained his B.Tech from IIT, Madras, his M.S. from SUNY, Stony Brook and PhD from Stanford University. He was a faculty in Mechanical Engineering Department at IIT, Kanpur from 1975 to 1982. He has been a faculty member in Centre for Atmospheric and Oceanic Sciences and in Department of Mechanical Engineering at Indian Institute of Science since 1982. He was a Senior Resident Research Associate at NASA, Langley from 1993 to 1995.He was the lead author in the 2nd and 4th IPCC reports on climate change and a review editor of the 3rd IPCC report on Climate Change. His talk is titled ***Climate Change and Renewable Energy: An Indian perspective.***

Dr. Gani Ganapathi got his Ph.D. from Rensselaer Polytechnic Institute in Chemical Engg/Biomedical field and joined JPL in 1991. Gani has over 16 years of experience working on problems related to fluids, thermal, and system modeling. He is recognized as an expert in the NASA Ion Propulsion System community for Xenon Feed Systems. He was instrumental in developing the Xenon Feed System for DS1 and has led many technology development tasks related to XFS such as Prometheus. He was the Lead Thermal Engineer for the Heat Rejection System for MER. Gani is currently the Group Supervisor of the Thermal Hardware and Fluids Systems Engineering group overseeing the activities of ten engineers working on multiple spacecraft projects and advanced technologies. His talk is titled "***JPL's role in the New Energy Marketplace: Solar and beyond".***

Mr. Harry Cikanek is Deputy Director of the Engineering Directorate at the NASA Glenn Research Center in Cleveland, Ohio. These responsibilities include leadership of the Service Module for the Orion spacecraft, in-house design and fabrication of the Ares I-X upper stage simulator, and many other activities addressing NASA's Science, Aeronautics, Exploration and Space Operations Mission Directorates. His earlier career responsibilities included engineering and project management in Launch Vehicles, Rocket Engines and Space Transportation Technologies. He is the Author of over a dozen papers, has received the Presidential Rank award of Meritorious Executive, the NASA Outstanding Leadership medal, and is an Associate Fellow of the American Institute of Aeronautics and Astronautics. Mr. Cikanek holds two degrees in Mechanical Engineering from Georgia Tech. His talk is titled "***NASA Glenn Research Center Space Technology – Advances for Sustainable Energy and the Environment".***

Dr. Anita Sengupta is a Senior Engineer at NASA's Jet Propulsion Laboratory (JPL). She is currently leading the development of entry, descent and landing systems for a mission to explore the surface of Venus and a mission to bring a sample back from Mars. She has also led the development of propulsion and deceleration technologies for Outer planet and Near-Earth Space Exploration. In addition to space exploration, she also is working to develop of a Space Based Green House Gas Information System (GHGIS) at JPL. As the point source architect lead for this mission she has investigated candidate mission design, spacecraft instrument selection, ground based measurement techniques, and assessment of global sources of CO_2 emissions. Dr. Sengupta is the recipient of several NASA and professional society awards, and has authored over 30 conference and journal publications. She received her Ph.D. and M.S in Aerospace Engineering from the University of Southern California and B.S. in Aerospace Engineering from Boston University. Her talk is titled "***Space Based Methods to Measure Green House Gases from the Planet's Top Emitters".***

Technical Session Speakers

Dr. Jean-Daniel Saphores is an Associate Professor in Civil and Environmental Engineering at the University of California, Irvine, with joint appointments in Economics, and Planning, Policy and Design. He earned his undergraduate degree in Civil Engineering from Ecole Nationale des Ponts et Chaussees (Paris, France). At Cornell University, he earned an MS in environmental systems (Civil Engineering), an MA in Economics, and a Ph.D. in Environmental and Natural Resource Economics. His research interests include understanding consumer preference for green products with an application to automobiles, greening freight transportation, estimating environmental externalities, and decision making under uncertainty using real options. In addition to two ATT Foundation Industrial Ecology Fellowship awards (2002 and 2003), he received the 2010 Pyke Johnson Award. His talk is titled "***Alternative Fuel Automobiles: Promises and Barriers".***

Dr. Sasi Pillay is the Chief Information Officer at the NASA Glenn Research Center. He is responsible for advocating, managing, and implementing Information Technology (IT) investments and infrastructure for NASA Glenn. Dr. Pillay is the recipient of NASA's Exceptional Service Medal and the Outstanding Leadership Medal. He is also the recipient of the Presidential Rank Award recognizing him as a Meritorious Executive in the U.S. federal government. Dr. Pillay was recognized as the CIO of the Year by the Northeast Ohio Software Association in 2008. Dr. Pillay received his B.S. in Mechanical Engineering from Pennsylvania State University, M.S. and Ph.D. degrees in Computer Engineering from Case Western Reserve University. He also has a Master's degree in Management of Technology from the Sloan School of Management at the Massachusetts Institute of Technology. His talk is titled "***Green IT: What Is It and How to Get There?".***

Dr. Joao Teixeira is the Supervisor of the Climate Physics Group and Associate Director of the newly created Climate Sciences Center at the Jet Propulsion Laboratory. He has been with JPL since 2008. Prior to JPL he was a Senior Scientist at the NATO Undersea Research Centre, in Italy, and a Scientist at the Naval Research Laboratory in Monterey, California and the European Centre for Medium-range Weather Forecasts, in the UK. His research Interests include global change prediction in general and in particular turbulence, clouds and climate models; specifically using a variety of models and observations to better understand the interactions between the climate system and small-scale processes, such as turbulence, convection and clouds, to improve future projections of climate change. Dr. Teixeira received his Licentiate in Geophysical Sciences and PhD in Physics (Meteorology) from the University of Lisbon, Portugal. His talk is entitled "***Climate Change and Prediction".*** He is also a member of the Expert Panel Discussion.

Technical Session Speakers

Track # 5 BUSINESS OPPORTUNITIES

Dr. Rajit Gadh is a Professor at the Henry Samueli School of Engineering and Applied Science at UCLA, and he is Director of recently announced UCLA Smart Grid Energy Research Center, and, the Wireless Internet for Mobile Enterprise Consortium (WINMEC). Dr. Gadh has a Doctorate degree from Carnegie Mellon University (CMU), a Masters from Cornell University and a Bachelors degree from IIT Kanpur all in engineering. He has taught as a visiting researcher at UC Berkeley, has been an Assistant, Associate and Full Professor at University of Wisconsin-Madison, and was a visiting researcher at Stanford University. He has won several awards from NSF (CAREER award, Research Initiation Award, NSF. He has lectured and given keynote addresses worldwide. Most recently, in 2008, he was named the William Mong Fellow by the University of Hong Kong. Dr. Gadh serves as advisor to several startup ventures. His talk is titled "***Convergence of Wireless and Internet Communications and Information Technology for Modernization of the Electric Distribution Grid to develop the Future Smart Grid".***

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Mr. Tim Cherry is a Director at PricewaterhouseCoopers LLP in the Sustainability and Climate Change practice. Tim has over twenty-five years of electric utility experience in the areas of engineering, management, and regulatory and legislative activities. More recently, Tim joined PricewaterhouseCoopers LLP's Sustainability and Climate Change practice concentrating on the electric utility industry. Tim holds Bachelor of Science degrees in Electrical Engineering and Biological Sciences. His talk is titled "***Sustainability- Business Opportunities and Best Practices".***

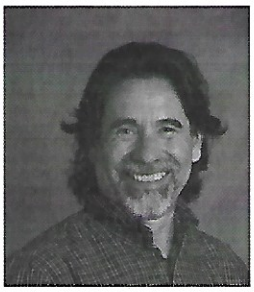
Dr. Arunachalam has more than 25 years experience in the field of commercial and military communications. He is a consultant with Southern California Edison in developing tools for optimizing the 3G network design. Prior to this, he was a senior Systems Engineer at Boeing leading the Voice-over-IP (VoIP) architecture effort for Future Combat Systems (FCS). He has been involved in the development of standards for wireless communications in 3GPP, ATIS, ITU and IEEE 802 standards organizations. His research interests include IP networking, network planning, performance and wireless/wire-line integration. He has received numerous awards including the Nortel Chairman's award for successfully standardizing PCS 1900 technology (based on GSM) in the U.S. and International standards organizations. PCS 1900 has been widely deployed by AT&T and T-Mobile in their networks. Arun received his Bachelor of Engineering with Honors in electronics and communications from Madras University and M.Sc. and Ph.D. degrees in electrical engineering from the University of Calgary, Alberta, Canada. His talk is titled "***Smart Grid Basics and Related Opportunities***".

Mrs. Mythili Arunachalam has over 15 years of experience in the wireless field, and is currently a manager in the Product Development and Integration group at Verizon Wireless. Prior to joining Verizon Wireless a year ago, she was Senior Manager of Fixed Network and RF Engineering at Nortel, based in Irvine. As part of her current role, she educates and supports Fortune 100 enterprises in incorporating wireless technology into non-traditional devices. Her experience spans across several verticals – Utility, Manufacturing, Healthcare, Media Tech and Financial. She has a B.Sc from Madras University and a Post Baccalaureate degree in Computer Science from North Carolina State University. Her talk is titled "Smart Grid Basics and Related Opportunities". Her talk is titled "***Smart Grid Basics and Related Opportunities***".

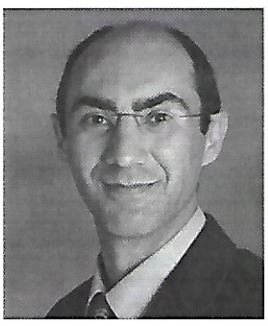
Technical Session Speakers

Mr. Chetan Deshpande has over 10 years of experience in biopharmaceutical, food and environmental research and is currently working as an Associate Scientist at Amgen. He is responsible for managing projects and research collaborations related to genomics technologies supporting research areas including cancer and arthritis. Prior to joining Amgen, Chetan held different research positions at Stanford Medical Center, Genencor International in the USA and ARI, Dynamicro group, and NCL in India. Chetan holds M.Sc. in Microbiology from the University of Pune, India, M.S. in Microbiology and Immunology from University of Tennessee, Memphis, and received his MBA in global business from Pepperdine University. His talk is titled ***"Biomass Gasifiers Taking to Emerging Markets".***

Dr. S. K. Ramesh joined California State University of Northridge (CSUN) as Dean of the College of Engineering and Computer Science in 2006. Earlier, Dr. Ramesh served as a professor and was Department Chair of Electrical Engineering at CSU Sacramento for 19 years. During his tenure there he also served as Special Assistant to the President and Provost to shape the Sacramento State campus' IT initiative. He has been recognized with several awards for innovative teaching, scholarship and service to the profession and the community. His research interests span the areas of high speed (Terabit/sec) optical communication systems, devices and electronic circuit design and he has several publications to his credit in these areas. Ramesh graduated with the B.E. degree (Honors, 1981) in Electronics and Communication Engineering from the University of Madras, India, and received the M.S.E.E. (1983) and Ph.D. (1986) degrees from Southern Illinois University, Carbondale. His joint talk is titled "***Energy Research, Sustainability and the Smart Grid".***

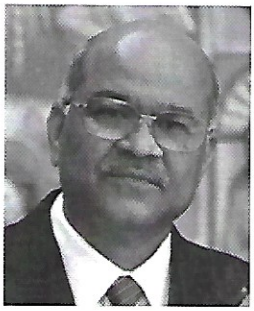


Dr. Bruno Osorno is Professor of Electrical and Computer Engineering at California State University at Northridge (CSUN). He is the lead faculty member in Electric Power Engineering and has developed and taught state of the art courses in this area for the past two decades. Professor Osorno taught at Northern Arizona University prior to moving to CSUN. Professor Osorno has received numerous research grants and contracts from industry and government including Southern California Edison, Boeing, Northrop Grumman, and NASA-JPL, and also serves as the Director of the College's signature Honors Co-Op program. Professor Osorno is a Co-PI on the Electric Utility Workforce Training Grant (DE-FOA-152) awarded in April 2010 with colleagues from Glendale Community College to educate engineers for the emerging smart grid. His joint talk is titled "***Energy Research, Sustainability and the Smart Grid".***

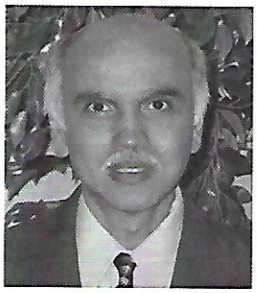


Professor Hamid Johari joined CSUN as Chair of the Mechanical Engineering Department in 2006. Prior to that he was at Worcester Polytechnic Institute for 17 years as a Professor of Mechanical Engineering. While at WPI, Prof. Johari served as the Director of the Aerospace Program and Associate Department Head. He has over 100 publications including 38 Journal publications, and has delivered over 30 invited presentations. His primary research interests lie in the areas of vortex-dominated flows, turbulent mixing and combustion in unsteady shear flows, and flow control. At CSUN, he has been serving as the Director of the Energy Research Center. He is a fellow of ASME and an associate fellow of AIAA. Prof. Johari received the 2010 Engineering Educator of the Year Award from the Engineers Council (www.sfvec.org) in recognition of his professional achievements and contributions. His joint talk is titled "***Energy Research, Sustainability and the Smart Grid".***

Technical Session Speakers



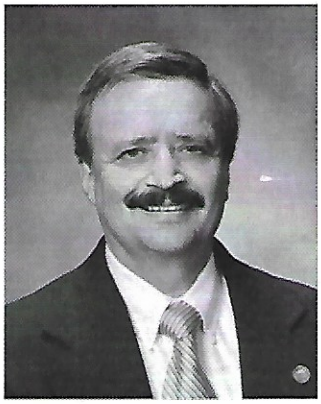
Mr. Rajan Kasetty is the CEO of Terrafore, Inc., a CA based Consulting and Technology Development Company. Terrafore's focus areas are Solar Energy and Energy Efficiency. Current development activities include innovative Solar Thermal Energy technologies and distributed Concentrating Solar Thermal Power (CSP) systems. The company's consulting activities cover large scale Solar PV and CSP systems. Prior to starting Terrafore, he was the CEO of Infotech Enterprises America, offering Engineering Design and IT services for aerospace, automotive and industrial sectors and Geographical Information Systems for utilities, transportation and governments. Rajan is a volunteer with the Clean Tech Open and mentors participating startup companies in the competition. His talk is titled "***Sustainable, Renewable, Distributed Power Generation***".



Dr. G. K. Surya Prakash is a B.Sc (Hons) in chemistry from Bangalore University and an M.S. in chemistry from the Indian Institute of Technology, Madras. He obtained his Ph.D. in physical organic chemistry at USC. He is currently a USC Professor and the holder of the George A. and Judith A. Olah Nobel Laureate Chair in Hydrocarbon Chemistry. His primary research interests are in superacid, hydrocarbon, synthetic organic & organofluorine chemistry. Professor Prakash has authored over 600 scientific papers and holds more than 30 patents. He has also co-authored or edited 10 books. He has received many awards and accolades. He is a fellow of the American Association of Advancement of Science and a Member of the European Academy of Arts, Sciences and Humanities. Dr. Prakash's latest book co-authored with the G. A. Olah (1994 Nobel Laureate in Chemistry) and A. Goeppert titled "***Beyond Oil and Gas: The Methanol Economy***" is also the title of his talk.

Mr. Chris J. Smith is the General Manager of Boeing Energy Solutions. In this role, he is responsible for all aspects of running and growing the Utilities and Smart Grid business within Boeing Energy. Chris previously served as Director Global Combat Systems. In late 2004, Chris held a position with Boeing in the US as the Director for International Solutions for the Homeland Security business Prior to his career with Boeing, Chris served 20 years in the Royal Australian Navy as a weapons electrical engineer and 2 years as a Regional Manager for a commercial systems integration company.Chris holds a First Class Honors Degree in Engineering and a Masters of Business Administration.

ASEI National Board Members



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Mr. PERRY MEHTA -VICE-CHAIR

Dr. SHREEKANT AGRAWAL - TREASURER

Mr. G.S. SRIDHAR - SECRETARY

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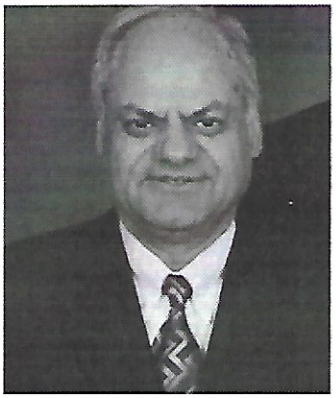
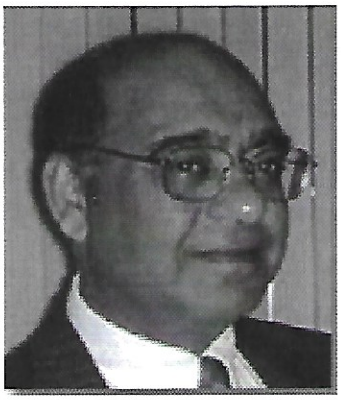
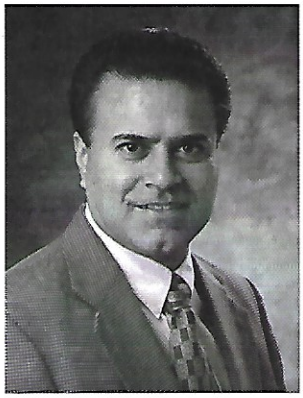


DR. HIRA FOTEDAR - DIRECTOR

ASEI National Board Members (contd.)

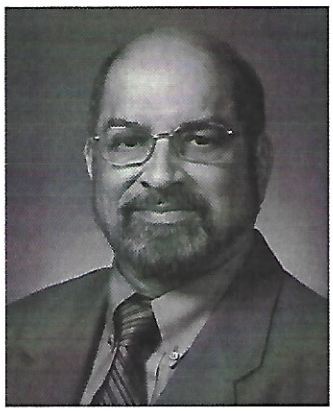


Mr. VIJAI GARG - DIRECTOR



Mr. AARON GHUMMAN - DIRECTOR

DR. BHARAT DOSHI - DIRECTOR



Dr. SHANTARAM PAI - DIRECTOR

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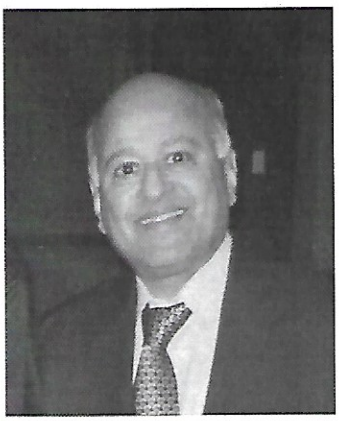
ASEI SoCal Board Members

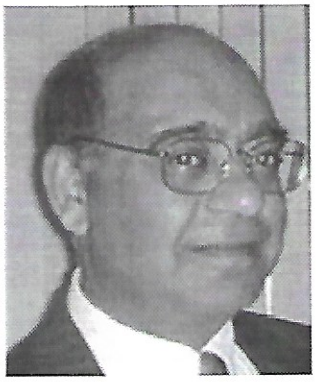
Mr. AARON GHUMMAN – PRESIDENT



Mr. RAMGOPAL RAO -VICE-PRESIDENT

Mr. VIJAY TREHAN - TREASURER

Mr. KUPP SRIDHAR - SECRETARY



Mr. VIJAI GARG - DIRECTOR

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ASEI Scholarship Awards

Each year, ASEI awards scholarships to outstanding student members that have achieved academic excellence in their field of interest. ASEI's investment into the educational pursuits of its younger members provides the necessary support they need to attain their goals. Scholarship awards are based on (a) demonstrated ability, (b) academic achievement, including GPA/honors/awards, (c) career objectives, (d) financial hardship, (e) faculty recommendations, (f) student involvement in science fair, campus activities, (g) industrial exposure including part-time work and internships, and (h) involvement in ASEI and other community activities.

ASEI KALPANA CHAWLA SCHOLARSHIP

This scholarship is instituted in memory of the highly accomplished NASA astronaut named Kalpana Chawla. She was one of the seven distinguished astronauts who lost their lives on the Columbia Shuttle Flight STS-107. This scholarship is in recognition of her contribution in the field of aerospace engineering for the benefit of mankind. The candidate will be judged for excellence in academics, leadership, and technical expertise. This annual scholarship will be awarded to one deserving graduate student in engineering at the ASEI National Convention. The scholarship amount is $2000.

ASEI UNDERGRADUATE AND GRADUATE SCHOLARSHIPS

ASEI awards several merit scholarships every year to students attending graduate & undergraduate studies in any field of engineering, architecture, computer or allied science at an accredited college or university in the USA. The scholarship awards are presented at the ASEI National Convention. The scholarships range from $500 to $1000.

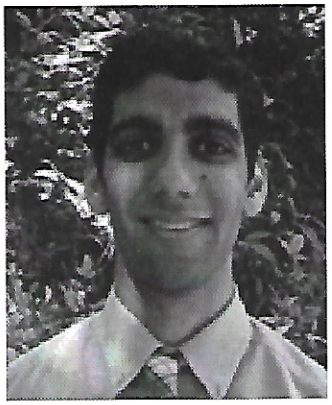
CRITERIA FOR SCHOLARSHIPS SELECTION

a. The student should be an Indian by birth, ancestry, or relation
b. The candidate should be enrolled as a full time student in engineering, architect, computer or allied science in an accredited college or university in USA
c. Grade Point Average requirement based on a 4.0-point scale
    a. 3.2 for Undergraduate scholarship
    b. 3.5 for Graduate scholarship
    c. 3.7 for Kalpana Chawla scholarship
d. ASEI membership
e. Must be present at the convention to receive the award

For information on how to apply for these scholarships, please inquire at scholarships@aseisocal.net

ASEI Scholarship Winners

ASEI Kalpana Chawla Scholarship Award Winner



Hanoz Santoke
University of California Irvine

ASEI Undergraduate Scholarship Winners

Libin Daniel
Embry-Riddle Aeronautical Univ.

Samira Motiwala
California Polytechnic University, Pomona

Shruthi Murali
University of California Irvine

ASEI Graduate Scholarship Winner

Deepti Satpute, California State University, Fullerton

ASEI Awards

ASEI recognizes its membership by offering a variety of awards. In 2010 ASEI recognized outstanding achievers in the following three categories:

1. **ASEI Excellence Award**
   This type of award is presented to an engineering professional or a student of Indian origin with exceptional contribution to the cause of Engineering science and businesses. The applicant will be judged against four criteria - professional achievement, service to the profession, service to ASEI organization and service to the community

   a. ASEI Student of the Year Award
   b. ASEI Engineer of the Year

2. **ASEI Lifetime Achievement Award**
   This award is presented to an individual who has 1) been a member of ASEI for at least 15 years, 2) served and participated in various capacities in the activities of local and national chapters, and 3) contributed significantly to promote the vision and goals of the ASEI organization. This candidate is selected by the recommendation of the Award Committee and approval by the Chairman of the ASEI board.

3. **ASEI Corporate Excellence Recognition Program (CERP)**
   Developed in 2005, the CERP awards resulted from the collaboration of ASEI and top corporations within United States. The vision of CERP is to salute the innovative strength that comes from a diversity of human capital. This award recognizes corporate excellence of outstanding engineers of Indian origin who are employed in industry, academia or government entities. Candidates are nominated by their managers and approved by their Human Resources department. The CERP awards are presented for five categories as follows:

   1. Corporate Engineering Excellence Award (Professional achievement)
   2. Corporate Woman Engineer of the Year Award (Gender specific)
   3. Corporate Young Engineer of the year Award (under 35 age, less than 10 years experience)
   4. Corporate Outstanding Achievement Award
   5. Corporate Service Excellence Award

   The CERP awards criteria are based on achievements, innovation, leadership, teamwork, integrity, community service, and leadership roles in other professional societies such as SAE, AIAA and ASME, etc.

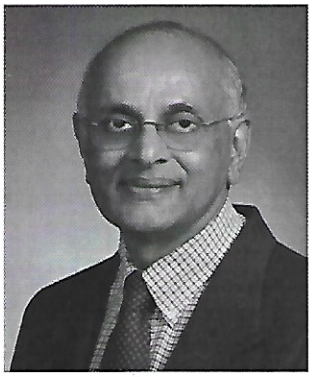
For information on how to apply for these awards, please inquire at awards@aseisocal.net

ASEI Awards Winners

Lifetime Achievement

Mr. Hari Bindal, United States Coast Guard

Engineer of the Year

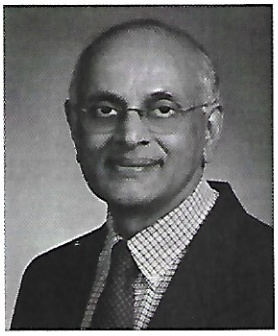


Dr. Sai V. Raj, NASA Glenn

Student of the Year

Ms. Deepti Satpute

CERP Award Winners



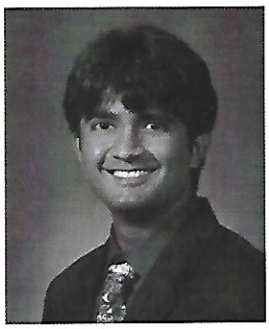
Dr. Sai V. Raj, NASA
Outstanding Achievement

Mr. Sanjay Bist, Wipro
Outstanding Achievement

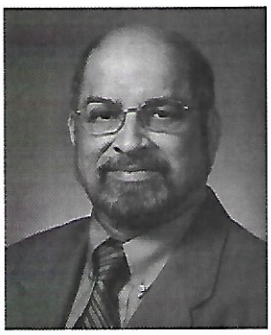
Mr. Hammam Battah, FutureNet
Engineering Excellence

Ms. Nirmala Krishnan, Boeing
Engineering Excellence

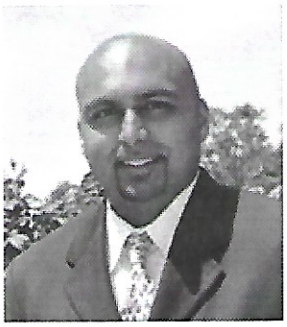
Ms. Shoba P. Krishnan, Boeing
Woman Engineer



Dr. Vikram Shyam, NASA
Young Engineer



Dr. Shantaram Pai, NASA
Service Excellence



Mr. Amit Bhattacharya, Boeing
Young Engineer

Mr. Perry Mehta, FutureNet
Service Excellence

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ASEI Michigan Chapter

ASEI Washington DC Chapter

2010 Convention Volunteers

ASEI THANKS ALL THE VOLUNTEERS

ASEI would like to graciously thank all the volunteers, listed below, for their time and tireless efforts in organizing and making the 2010 convention a successful event. These volunteers exhibited the true spirit of ASEI membership.

Shreekant	Agrawal
Smita	Bagla
Harish	Bhardwaj
Kiran	Chokshi
Bharat	Doshi
Hira	Fotedar
Srihari	Gangaraj
Vijai	Garg
Aaron	Ghumman
Subba	Gopavarapu
Ashok	Iyer
Peter	Iyer
Sameer	Jatana
Krish	Krishnamurthy
Shantaram	Pai
Venkatacha	Parameswaran
Jay	Patel
Abhishek	Pednekar
Al	Rajput
Ramgopal	Rao
Mahesh	Reddy
Anita	Sengupta
Gani	Shaikh
Dilesh	Sheth
Nikhilesh	Sheth
Paul	Sikand
Kupp	Sridhar
Vijay	Trehan

Best Wishes and Congratulations

on the ASEI 2010 National Convention

and

Silver Jubilee Celebration of Founding of ASEI

from

The Founder of ASEI

Mr. Hari B. Bindal

Congratulations to ASEI on its 25th Annual Convention

from

Wipro Technologies

Wipro is driving a self transformation to create an ecologically sustainable organization and business. As Wipro moves forward on this path, it would continuously try to influence all its stakeholders and communities, to move towards ecological sustainability.

About ASEI SoCal Chapter

ASEI Southern California History

The ASEI Southern California Chapter was formed in 2004 by five visionaries from the Boeing Company: Paul Sikand, Darsh aggarwal, Jay Patel, Ravi Kahandal, and Sham Hariram.

Subsequently, several engineering leaders from various reputable aerospace companies in the LA and Orange County areas came together with the vision to build a strong ASEI chapter in Southern California. They appointed an ad-hoc Board of Directors and in August 2005, an executive committee was elected consisting of Paul Sikand (President), KulBhushan (Vice President), Harish Bhutani (Treasurer) and Sham Hariram (Secretary).

In 2006, the SoCal chapter hosted a successful ASEI National convention under the leadership of Shreekant Agrawal as the convention Chair. In December 2006, formal elections were held to form a Board of Directors of 15 members. The chapter strives to be a vibrant organization providing its members with professional networking events, community service opportunities, and mentoring.

In 2008 we successfully hosted an International Sanitation Symposium. The purpose of the symposium was to synergize various non-profit efforts to improve sanitary conditions in India through the creation of a framework that combines technology, business opportunity and cultural changes.

ASEI SoCal GOALS – 2009-2010

- Improve ASE SoCal Brand
- Host Networking Events
- Host 2010 National Convention
- Participate in Community Service Activities
- Initiate mentoring program
- Participate in alternative energy initiatives

For more information about ASEI SoCal, please visit our website

www.aseisocal.net

ASEI Benefits

Ongoing Programs

- Mentorship
- Community Service
- Technical Talks
- Recognition
  - Corporate Excellence
  - Academic Achievement

Large Events

- Symposiums – Intl. Sanitation Technology Exchange
- Networking Gatherings
- Annual Conferences:
  - 2007 Washington DC
  - 2006 Anaheim, CA
  - 2005 Cleveland, OH

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