Biography of Dr. Brian Prasad

Brian Prasad is known best for delivering many innovative, efficient and practical knowledge-based engineering (KBE) solutions to product design and development using off-the-self **product life-cycle management (PLM) tools (like CATIA or NX)** for aerospace & automotive companies. He is a notable architect of **knowledge-based lean product development (KLPD) technology**/ solutions for doing more with leaner resources. He is author of several books, and the Editor-in-Chief of the most premier **Int. Journal of Concurrent Engineering**. Along with outstanding technical skills, he is well-recognized thought leader and an International authority on the subjects of knowledge-based development, Knowledge management & reuse. He is a senior executive consultant, CEO, chief knowledge officer, founding editors, CTO, and on the Board of Advisors to many multi-national companies. He is a syndicated columnist for publications including Concurrent Engineering, Value-based Management, Business Process Management, Journal of Manufacturing Systems, and Industrial Knowledge Management. He has taught at California Institute of Technology (CalTech), University of California, Irvine (UCI) and California State University Fullerton (CSUF), School of Engineering. He holds many adjunct faculty positions at Oakland University, Rochester; Wayne State University, Detroit; West Virginia University, Morgantown; to list a few. He was an **Adjunct Professor** of Mechanical & Aerospace Engineering at West Virginia University, Morgantown, WV. He also **taught** at Wayne State University, Lawrence Tech University, and Oakland University, MI.

Dr. Prasad specializes in knowledge-based lean thinking, system engineering, concurrent engineering (CE), lean design process, and lean manufacturing concepts & principles. He has achieved great successes in reengineering company's life-cycle processes, and concurrently developing lean product development (LPD) solutions for its products; thereby, significantly reducing its (enterprise) development time and costs. He has written books on knowledge-based engineering **(KBE), CE & LPD subjects** and has published numerous papers in many refereed journals and conferences. In his two-volume textbooks on set-based concurrent engineering, he has eloquently described how to create such next generation of knowledge-based solutions (KBS) for concurrent product development.

He worked at **Parker for about 11 years from 2002 to 2013**, during which he developed a variety of best-of-the-class automated design solutions for a number of Parker product lines. Most recently, he developed a **next generation of KLPD tools** for rapid manifold design (RMD) and manufacturing. Today this tool is being used by Parker engineers for designing manifolds enabling them to work concurrently with other collaborating design groups. By strategically combining Toyota production system (TPS) with emerging product life-cycle management (PLM)/KBE tools along with standard processes including restructuring, product/process renovation and organizational traits, he was able to create remarkable knowledge-based solutions. Parker has gained a big competitive advantage with RMD in configuring/bringing new products to market faster right from initial customer specification. With RMD, Parker is realizing a very hefty **gain in productivity and efficiency**. Today, many forward thinking manufacturing organizations are exploiting such concurrent approaches & **knowledge-based lean product development (KLPD)** solutions for better returns on their investments (ROIs). Emergence of such **KLPD solutions** are transforming many of those organizations from a path of slow (say a continuous process improvement (CPI)-based) progression to a fast-paced road of lean & learning organization.

Prior to Parker, Dr. Prasad worked for over 15 years in similar capacities at many large engineering & manufacturing companies. During 2001, Dr. Prasad served as the Director of the Engineering, Information Technology and Sciences unit of the University of California at Irvine Extension (UNEX), CA where he managed over $5M Corporate Training program. From 1998 to 2000, Dr. Prasad was the *Director, Knowledge-based Engineering Product Business Unit at EDS/Unigraphics Solutions (UGS)) in California, now a part of NX/Siemens, USA where he was in charge of $20M S/W business.* He has secured and managed large funded research from many (Government and Private) sources. *Before joining EDS/UGS in 1995, Dr. Prasad was the Principal Consultant and Director of Concurrent Engineering Services at Electronic Data Systems (EDS)* (an ex-subsidiary of General Motors), where he was in charge of Automated Concurrent Engineering consulting Group. In addition to EDS, he has also worked at General Motors & Ford Motor Company.

He has written or co-authored over **125 technical (refereed) publications**, including 100 archival papers and a dozen books. He wrote a **Textbook** on "Concurrent Engineering Fundamentals," -- a two-volume set-- published by Prentice Hall, USA The textbook is followed in many universities. He edited a textbook on *Modern Manufacturing: Information Management and Control (1994)*, published by Springer Verlag. In 1989, he edited a set of three-volume book entitled *CAD/CAM, Robotics and Factories of the Future, 1989*, Springer-Verlag. He has served as editors for several additional texts, monographs and proceedings. He supports professional societies in several editorials and organization roles. He served as the **General Chairperson** on two International Conferences: *ISPE's CARS & FOF'88 Conference* held in Detroit, MI (1988) and *31st, AIAA/ASME/ASCE/AHS/ASC Structural, Structural Dynamics and Materials Conference (SDM'90)*, held in Long Beach, CA (1990). He served as **President** of the *International Society for Productivity Enhancement (ISPE) for several years*. He has presented several short courses, and has consulted frequently with external organizations.

He has received numerous awards: AIAA's **Survey Paper Citation Plaque** & Award (in 1982), **a NASA Award** and a Certificate for Creative Development of a Technical Innovation on *"PARS"- Programs for Analysis and Resizing of Structures* (in 1981), and the ABI (American Biographical Institute) **Commemorative Medal of Honor** (in 1987). Most recently, he received the **Distinguished Engineering Merit Award** from Orange County Engineering Council (OCEC)**,** during the National Engineers' Week Awards Banquet, held on February 22, 2013. A year before**,** CATIA Operator Exchange (COE) Forum awarded him with **B.J. Fries Award of Merit** at the COE conference in April 2012

Dr. Prasad was the **Founding Editor-in-Chief** for the International J. of Systems Automation: Research & Applications (SARA). He is the **Managing Editor** for the International J. of Concurrent Engineering: Research & Applications (CERA).

He is a well-recognized International authority on the subject of Concurrent Engineering with articles and market insights appearing frequently in national and international Journals and Magazines. He is named one of the industry's ten most sought consultants in KBE and Design Automation. You may have read or seen his insights on knowledge-based Engineering, intelligent Manufacturing and analysis of the automotive industry in refereed publications ranging from AIEDAM; **Encyclopedia of Microcomputers,** to Journal of Systems Research and Behavior Science; Industrial Management and Data Systems; J. of Engineering Design; Journal of Systems Integration; APICS, CIDAC, Journal of Production Planning and Control; and numerous other refereed publications.

His insights into the future of knowledge-capture technology and knowledge-based lean product development (KLPD) may look revolutionary to some but they are often very real. Companies are using these technologies today to cut-down on product development time and realizing hefty savings in engineering and manufacturing costs. Use of such technologies is now beginning to shape how best-in-class companies would be designing most of their new products in future. He is one of the industry's most sought-after speakers in concurrent engineering and integrated product development. His hallmark is rich content presentations that go beyond technology buzzwords by offering insights that are thoughtful, entertaining and memorable.

Dr. Prasad' books include, **Concurrent Engineering Fundamentals**: **Volume I** -- "Integrated Product and Process Organization," (PTR Prentice Hall, New Jersey); **Concurrent Engineering: Fundamentals: Volume II --** "Integrated Product Development" (PTR Prentice Hall, New Jersey). **Advances in Concurrent Engineering Series – CE 96; CE97; CE98; CE99; CE2000 (**Technomic Publishing, Lancaster, PA). **Modern Manufacturing: Information Control & Technology**, (Springer Verlag, London); **ASME Engineering Information Management, (ASME Press); Database: Integrating the Enterprise**: (ASME Press, NY). **Structural, Structural Dynamics & Materials** Proceedings (AIAA, NY). **Integration of Design, Analysis and Manufacturing** (Springer Verlag); **Automation of Design, Analysis and Manufacturing (S**pringer-Verlag), **Robotics & Plant Automation** (Springer Verlag). **CAD/CAM Robotics & Factories of the Future**, Springer-Verlag.

Dr. Prasad has served on numerous committees for ASCE, ASME and SAE. His **professional honors** include: Associate Fellow of AIAA, Fellow of ASME, ASCE, SAE, AAAI, and fellow and life member of ISPE. He is listed in Who's Who in America (2002), Who's Who in Engineering, **International** Men of Achievement, International Biographical Center (IBC), England (1986), **Dictionary** of International Biography, IBC (1986), **Who's who** in Frontier Science & Technology, (1985), **Who's who** in Technology Today (1985), **Who's who** in Aviation & Aerospace (1983), **International** Directory of Engineering Analysts (IDEA), (1983), **Personalities** of America, (1986).

Dr. Prasad holds a **Ph.D. degree** in Mechanical and Aerospace Engineering from Illinois Institute of Technology, Illinois, Chicago. He also graduated from **the Stanford University**, School of Engineering with a **Degree of Engineering** in Applied Mechanics (now a Division of Mechanical Engineering), California.