About the Individual

(Biographical Sketch of Professor Dr. T. S. Srivatsan "SRI"]

Title: Professor (Emeritus)

Dept/Program: Mechanical Engineering

Office: ASEC 106C Phone: 330-972-6196 Fax: 330-972-6027

Email: tsrivatsan@uakron.edu; srivatsants@yahoo.com **Website:** http://sites.google.com/site/tirumalaisrivatsan/

Dr. T. S. Srivatsan ["Dr. SRI."] is **Professor** (Emeritus) of Mechanical Engineering at **The University of Akron** (Akron, Ohio). With specific reference to education after successfully completing and graduating from **Bishop Cotton Boys School** [Bangalore; December 1972] he pursued higher education with diligence and dedication and finished his:

(A) *Undergraduate degree*:

Bachelor of Engineering in <u>Mechanical Engineering</u> (**B.E.,** in 1980) from Bangalore University: Visvesvaraya College of Engineering in 1980,

- (B) *Graduate degree(s):*
 - (i) Master of Science in <u>Aerospace Engineering</u> (M.S. 1981) from Georgia Institute of Technology, and
 - (ii) Doctor of Philosophy in <u>Mechanical Engineering (Materials Science and Engineering)</u> (**Ph.D.** 1984)] from Georgia Institute of Technology.

During his graduate education, he did make every effort to specialize in fields synergizing all aspects related to the processing, characterization and mechanical behavior of both engineering and engineered materials and related structures. After graduating with the doctoral degree in 1984, he worked in the following positions as:

- (a) Instructor (part-time) Department of Mechanical Engineering at Georgia Institute of Technology PLUS Research Engineer at the Georgia Tech. Research Institute (Atlanta, GA, USA), and
- (b) Lead Project Engineer and Manager of Research and Development at Materials Modification Inc. (Falls Church, Virginia, USA).
- (c) He then joined the faculty in The Department of Mechanical Engineering at **The University of Akron** (Akron, Ohio, USA) in August 1987 and through the years, by way of accomplishments and achievements in the domains encompassing Teaching, Research and Service, he rose to the rank of **Professor** (1997 2018).

During his tenure in an academic setting [1987-2019] he has <u>edited/co-edited/authored Sixty [60] books</u> and four [4] monographs in areas cross-pollinating:

- (1) *Mechanical design*;
- (2) Processing and Fabrication of Advanced Materials;
- (3) *Deformation, Fatigue and Fracture of ordered Intermetallic Materials*;
- (4) *Machining of Composites;*
- (5) Failure Analysis;
- (6) Technology of Rapid Solidification Processing of Materials, and
- (7) *Additive Manufacturing of Materials: Innovations and Developments.*

A: Research Accomplishments:

His research areas have over the years covered the following specific domains and/or sectors:

- (a) The fatigue and fracture behavior of advanced materials and structures to include: (i) monolithic(s), (ii) intermetallic, (iii) Nano-materials, and (iv) metal-matrix composites.
- (b) Environmental degradation of both engineering materials and engineered materials and structures; fondly referred to by the educated elite as corrosion.
- (c) Processing techniques for advanced materials and nanostructure materials.
- (d) Inter-relationship between processing and mechanical behavior of materials and resultant structure.
- (e) *Electron microscopy*.
- (f) Failure analysis.

His funding through the years has come primarily from the following: (i) a cross-section of industries, both 'local' and 'international', having interests and products specific to materials and manufacturing techniques, (ii) the State government, and (iii) the Federal government, and is to the **order of a few millions of dollars.**

He [Dr. T. S. "Sri" Srivatsan] also serves as the CO-editor of the international journal on Materials and Manufacturing Processes (published by Taylor & Francis Group., Philadelphia, PA, USA). During the same time period he offers his services on the editorial review board of five other journals in the domains of (i) Materials Science and Engineering, and (ii) Manufacturing Processes. Through the years, his research efforts have enabled him to both prepare and deliver over two-Hundred and thirty-five plus [235+] technical presentations in: (a) National and International meetings and symposia; (b) Technical/Professional societies; and (c) Research and Educational institutions.

He has since graduation with the doctoral degree (PhD) authored and/or co-authored over **seven hundred** (700+) archival publications in: (a) International Journals (360), (b) Chapters in books (10) (c) Proceedings of national and international conferences (235), (c) Scholarly Review of technical books in archival journals (79), (d) Documented Technical Reports (75).

As on January 2019 his citation index (Google Scholar) "h" is **50** [highest in the College of Engineering at The University of Akron] and an **RG score of 44.95** [to be ranked well within the top 2.5 percent of researchers spread through the world]. Besides, he has to his credit the following:

- (i) Personally mentored, supervised and successfully graduated over **70** students at the graduate degree level [Master of Science (MS) and Doctor of Philosophy (PhD)] [1987-2019].
- (ii) Supervised three post-doctoral research scholars.
- (iii) Advised, supervised and mentored over **600+** students at the undergraduate level [1987-2018].

He offers his knowledge in research services **to** the following: (a) The U.S. Government (U.S. Air Force and U.S. Navy), (b) National Research Laboratories, and (c) industries related to (i) Aerospace, (ii) Automotive, (iii) Power-generation, (iv) Leisure-related products, and (v) Applied medical sciences.

B: <u>Teaching and/or Instruction AND Mentoring</u>:

During his tenure in the academic environment (initially at Georgia Institute of Technology and subsequently The University of Akron), he has instructed both <u>undergraduate and graduate courses</u> in the areas of:

- 1. *Introduction to Materials Science and Engineering,*
- 2. Mechanical Measurements,
- 3. Design of Mechanical Systems,
- 4. *Mechanical Engineering Laboratory*,
- 5. Advanced Materials and Manufacturing Processes,

- 6. *Mechanical Behavior of Materials and Structures*,
- 7. Fatigue of Engineering Materials and Structures, and
- 8. *Introduction to Fracture Mechanics.*

His instruction and teaching philosophy have provided the students enrolled in mechanical engineering and pursuing graduate degrees the much needed and desired stimulus for learning and appreciating both the need and importance of inter-disciplinary research and education in the emerging areas of: (i) Materials Science and Engineering, and (ii) Technology advancements into the nanoscale.

Through the years, he has also supervised several senior design projects and a few honors projects for undergraduate students. These projects have enabled the undergraduate students to obtain practical hands-on experience while concurrently enriching their college experience and making them both desirable and much sought after for real world engineering. At the same time through direct supervision, he has also encouraged, inspired and motivated the undergraduate students to pursue higher education in engineering through enrollment in graduate school, and to make the process of learning and education to be exciting, enduring, enlightening and empowering. Excitement has resulted by providing the students a path for both simplifying and understanding the innate difficulty of the engineering subject. Adequate explanations have been provided to both the student and the 'interested' learner of appropriate examples related to industrial applications and occurrences in nature. This repeated reiteration has certainly enabled in both enhancing and enlightening the interests and desire of the "interested" individual/student to learn. Through the years, Dr Srivatsan has willingly enabled the undergraduate student through their direct involvement and participation in ongoing research projects coupled with interactions with the graduate students and postdoctoral research scholars to learn about the advantages, benefits and value of higher education.

C: Recognition and Awards

Based entirely on his accomplishments and achievements in the domains enveloping the scientific and related hemispheres of engineering and technology, Dr. Srivatsan has been chosen as:

1. Outstanding Young Alumnus of
Georgia Institute of Technology (Atlanta, GA, USA)

1996.

2. Outstanding Research Faculty
College of Engineering:
The University of Akron (Ohio, USA)

1997

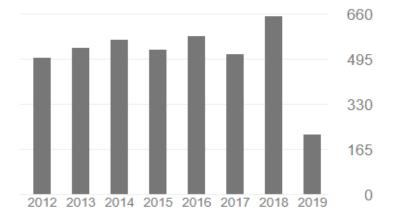
- 3. Considering his sustained contributions to the technical literature and its far-reaching implications and impact on furthering knowledge he was recognized as:
 - (a) FELLOW of the American Society of Mechanical Engineers (F. ASME)
 (b) FELLOW of the American Society for Materials International (F. ASM)
 (c) FELLOW of the American Association for the Advancement of Science
 (F. AAAS)
- 4. Commensurate with his dedicated, diligent and ceaseless service he was recognized with Louis Hill Award of College of Engineering for Exceptional Dedication and Service 2006 The University of Akron (Akron, Ohio, USA)
- 5 Outstanding Research Faculty
 The University of Akron (Akron, Ohio, USA)
 2015

6.	Alexander M. Scott Outstanding Service Award The Minerals, Metals and Materials Society (TMS, Warrendale, PA, USA)	2016	
7.	Distinguished Member. EU (European Union) Academy of Sciences	2016	
8.	Albert Nelson Marquis <i>Lifetime Achievement Award</i> [Marquis Who's Who]	2018	
9.	Dr. Srivatsan also has the distinct honor of being chosen, in recent years, for inclusion in		
	 ♠ Elected to WHO's WHO in AMERICAN EDUCATION: 7th edition ♠ Elected to WHO's WHO in the MIDWEST ♠ Elected to WHO's WHO in TECHNOLOGY ♠ Elected to WHO's WHO in the WORLD: 23rd edition ♠ Elected to WHO's WHO in AMERICA: 59th edition ♠ Elected to WHO's WHO in SCIENCE and 	2005-2006 1992-2004 1994-2004 2005-2006 2005	
	 ENGINEERING: 8th edition WHO's WHO among AMERICA's TEACHERS: 7th edition WHO's WHO among Executives and Professionals: Cambridge WHO's WHO among Executives and Professionals: Cambridge WHO's WHO among Executives and Professionals: Cambridge 	2005 2005 & 2006 2007 2009-2010 2011-2012	
	 WHO's WHO among Executives and Professionals: Cambridge Leader and Professional "Honors Edition" Princeton Premier Registry Elected to WHO's WHO in AMERICA: 63rd edition (Marquis) Elected to WHO's WHO in AMERICA: 66th & 67th edition (Marquis) Elected to WHO's WHO in the WORLD 2018 (Marquis) 	2015-2016 2007-2008 2010-2011 2016-2018 2018-2020	

Google Scholar Citations as on **April 14, 2019**

VIEW ALL





ResearchGate [RG] Score Card As on: April 14. 2019



T. S. Srivatsan 11 44.95 · Doctor of Philosophy in Mechanical Engineering · Edit



h-index ① 39

h-index 39 excluding self-citations Top h cited research:

Processing techniques for particulate-reinforced metal aluminium matrix composites

Article · Nov 1991 · Journal of Materials Science See more