

## Preface



It is a real pleasure to preface this special issue of Composites Science and Technology with a short summary of Professor C.T. Sun's professional accomplishments. The papers collected in this special issue were developed in response to a call for special session papers at the 18th Annual Technical Conference of the American Society for Composites, October 19–22, 2003, Gainesville, Florida, to honor C.T. and celebrate his 64th birthday. Presentations at the special sessions were provided by many of C.T.'s friends, colleagues, and former students. The celebration included a banquet and a review of C.T.'s career accomplishments.

Professor Sun is the Neil A. Armstrong Professor of Aeronautics and Astronautics at Purdue University, West Lafayette, Indiana: an institution that C.T. has called home for over 37 years. C.T. started his collegiate career at the National Taiwan University where he received a Bachelor of Science degree in civil engineering in 1962. He went on to receive a Master of Science in Theoretical and Applied Mechanics and a Doctor of Philosophy degree, both at Northwestern University, in 1965 and 1967, respectively. Enjoying his time in Evanston, C.T. continued on in a post-doctoral position for another year before venturing south to West Lafayette.

So, it was in 1968 that C.T. accepted the position of Assistant Professor of Aeronautics and Astronautics at Purdue University. One can only speculate how the eager young professor viewed the world at that time, but it quickly became clear to his colleagues that C.T. was intent on setting his mark by promoting new advances in mechanics and investigations into the ever-expanding world of structural composites. At Purdue, C.T. quickly rose through the academic ranks and accepted the position of Full Professor in 1975.

C.T.'s influence on several generations of aerospace engineers is almost unprecedented. Since joining Purdue University in 1968, Professor Sun has supervised and graduated more than 70 Ph.D. students! He has taught and supervised hundreds of other graduate and undergraduate students and worked directly with many domestic and international visiting scholars. His course work has focused on aerospace structures and materials and includes the authorship of a book on the mechanics of aircraft structures and several book chapters on the mechanics of composite materials.

Working with many key technical organizations, C.T. has been instrumental in the development of professional

conferences and special sessions including the responsibility for editing over seven conference proceedings. He has served on many committees within the American Institute of Aeronautics and Astronautics (AIAA), American Society for Composites (ASC), and the American Society for Mechanical Engineers (ASME) and has received the honor of Fellow of the ASME, AIAA Fellow and ASC Fellow. His devotion to promote quality research is evident in the many editorial positions he has held with professional journals such as *Acta Mechanica Solida Sinica*, *Journal of Composite Materials*, *Composites Science and Technology*, *Journal of the Astronautical Sciences*, *Journal of Applied Mechanics*, *Journal of Composites Technology and Research*, *International Journal of Damage Mechanics*, *Mechanics of Composite Materials and Structures*, *The Journal of Sandwich Structures & Materials*, and *International Journal of Impact Engineering*.

C.T. has received many distinguished awards that highlight his contributions to academia and the professional community. These awards include the Elmer F. Bruhn Award for outstanding teacher in the Purdue University School of Aeronautics and Astronautics, the AIAA Structures, Structural Dynamics and Materials Award Medal of Excellence in Composite Materials, the Center for Composite Materials, University of Delaware, the Research Award for Excellence in faculty research College of Engineering, Purdue University and the ASTM Wayne W. Stinchcomb Memorial Award.

The breadth and depth of C.T.'s research contributions is truly an inspiration to all. The author or co-author of over 265 peer-reviewed journal papers and 280 conference proceedings, C.T. has addressed topics that range from dynamics of materials and structures, solid mechanics, constitutive model development, experimental methods, impact, structural stability, failure theories, space struc-

tures, computational methods, fatigue, plasticity, nanotechnology, and of course, mechanics of composite materials. This prodigious research output is complimented by funded research tasks from many laboratories, institutions, federal agencies, and industrial partners. C.T. has served on many advisory boards and oversight committees and has established a well-deserved reputation as a consultant to the aerospace industry.

Certainly, one could look at the sum total of C.T.'s career to date and assume that the teaching, research, and scholarly contributions would define the individual. But, as anyone who knows C.T. can attest, the real defining attributes are his honesty, the easy friendship and real concern he has for the students and professional colleagues. These are intangible attributes that in combination with his devotion to the profession make Professor C.T. Sun one of the most recognizable and prominent members of the international aerospace community. It is these qualities and the untiring work ethic that we are proud to honor in this special issue.

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