

Luncheon Presentation

Tire Society Distinguished Achievement Award



Takashi Akasaka (1925–2010)

Dr. Takashi Akasaka is the second recipient of the Tire Society Distinguished Achievement Award. This bi-annual award recognizes outstanding contributors to tire science and technology. A presentation is being given in his honor, to be accepted by his son Dr. Shuichi Akasaka.

A lifetime of achievement in tire science and technology and a record of contributions by Dr. Akasaka, along with his mentorship of additional researchers that went on to also contribute to this field of knowledge make him an ideal choice for this award.

Dr. Akasaka conducted and published contributions to tire research for over 50 years, beginning immediately after his undergraduate education in the 1940s and extending into the 21st century. He published 12 books and over 94 refereed papers dealing with applied mathematics and mechanics. Akasaka contributed many articles to the Tire Science and Technology journal. Furthermore, he encouraged and mentored many students who went on to become well respected, lifelong tire science researchers themselves, such as Doctors Shunichi Yamazaki and Kazuyuki Kabe. He received his doctorate degree based on his work with the role of cord inextensibility in cord-rubber composite behavior from the University of Tokyo at the age of 37. He did much of his work while a lecturer and professor at Chuo University.

His many insightful publications dealing with mechanical properties of cord-rubber composites first appeared in a series of internal university reports written during the 1950s. He developed sufficiently accurate but also simple equations for the various elastic constants of a single ply as well as for multiple-ply laminates of cord and rubber. Dr. Akasaka went on to apply these cord-rubber composite descriptions by modeling many different aspects of tire behavior. His knowledge of physics and skill in mathematics enabled him to develop analytical models that provide insight and understanding of the dominant physical mechanisms, thereby making tire design more physically understandable. He was also comfortable in the laboratory, using experimental methods to observe behaviors and corroborate models. Tire topics he addressed include tire cross-section natural shape, tire frequency response, cord compressive failure due to cornering, standing waves at high speed, hydroplaning, irregular wear, cornering properties and tire-to-ground contact pressure distribution.

Dr. Akasaka served as an associate editor from the beginnings of the Tire Science and Technology Journal until very recently, 1973-2008. As an invited speaker he delivered the Plenary Address at the 1984 conference.

In view of his long, proficient and distinguished career it is most appropriate to award The Tire Society Distinguished Achievement Award to Dr. Takashi Akasaka.