



The J. Keith Brimacombe IPMM Award

**for excellence in cross-disciplinary research in
Intelligent Processing and Manufacturing of Materials**

The 2007 J. Keith Brimacombe IPMM Award

**for cross-disciplinary research in
Intelligent Processing and Manufacturing of Materials**

awarded to

Antonio Donnarumma

Professor Antonio Donnarumma has had a distinguished career as a Professor and Head of the Department of Mechanical Engineering at the University of Salerno where he introduced the concepts of Fuzzy Logic into his research. Many students have completed industrial-scale projects under his guidance and supervision in the use of Fuzzy Systems in a wide variety of innovative and unique approaches to the control and operation of processes. In some respects, Professor Donnarumma can be considered the Italian Father of Fuzzy Logic.

I first met Professor Donnarumma at IPMM-1999 in Honolulu, Hawaii. He has been a great supporter of IPMM over the years by encouraging his students and colleagues to prepare and present papers on their research work. One of his students, Francesco Villecco, won the Best Student Paper Award at IPMM-2003 in Sendai, Japan.

I know that his students and colleagues "love" their "Fuzzy Professor". He has been a mentor and an advisor to many students who have developed a deep affection for him over the years.

For these reasons, it is most fitting that Professor Antonio Donnarumma was selected to receive the 2007 J. Keith Brimacombe IPMM Award.

John A. Meech
Past-President of IPMM
June 25, 2007



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**"Ideas are never generated collectively by a group;
rather they arise within the mind of a single individual.
But to find true creativity, the fellowship of cross-disciplinary
research is an essential ingredient."**

adapted from John Steinbeck



**"Life is no brief candle to me.... It is a sort of splendid torch which I am
permitted to hold for a moment..... I want to make it burn as brightly as
possible before handing it on to future generations."**

George Bernard Shaw

This award was established in 1999 in memory of Dr. J. Keith Brimacombe who was one of Canada's most outstanding Metallurgical Engineers.

Dr. Brimacombe was Professor of Metals and Materials Engineering and Director of the Centre for Metallurgical Process Engineering at the University of British Columbia from 1970 until his untimely death in 1997. During his career at UBC, he and his research team delved into all aspects of metallurgical processes including extraction of metals, continuous casting of steel, rolling of steel and aspects of microstructural control. He was a curious researcher who paid particular attention to what was happening in the real world. The

metallurgical mills and plants of the world were his laboratory. Numerous plant trials were conducted by all his protégés to collect data for analysis using highly sophisticated mathematical models. He had no fear of noisy data derived from the unstable and dirty environment of the plant. The models used were applied in a practical fashion to provide solutions for problems whether they were design, operating or maintenance issues.

Keith Brimacombe won numerous awards during his career from many organizations including the CIM, TMS and the Government of Canada. He was an Officer of the Order of Canada and a Fellow of the Royal Society of Sciences.

A strong believer in technology transfer and the need for fundamental research, Dr. Brimacombe was a strong supporter of IPMM. He was a Keynote Speaker at the First International IPMM Conference held in Gold Coast, Australia in 1997 where he presented his vision of the Intelligent Mould for Continuous Casting of Steel Billets. Prior to his death, Dr Brimacombe had assumed the position of Chief Executive Officer with the Canadian Foundation for Innovation in Ottawa.

He will be missed by all who knew him and had the privilege to work with him.

[2007 Award Winner](#) - Antonio Donnarumma
[2005 Award Winner](#) - Lotfi A. Zadeh
[2003 Award Winner](#) - Susumu Shima
[2001 Award Winner](#) - John F. Maguire
[1999 Award Winner](#) - Yoh-Han Pao

NOMINATION PROCEDURE

Nominations are received from the members of IPMM during the year prior to our bi-annual conference. Nominees are judged by the IPMM Awards Committee with the following terms of reference:

1. The candidate must have been working in the field of Intelligent Processing and Manufacturing of Materials for at least 10 years.
2. The candidate must have made a clear contribution to the field of IPMM that is widely recognized and respected.
3. The candidate must be nominated by at least two members and must agree to let his or her name stand for consideration.
4. The nomination must include a covering letter describing the individual and the contribution(s) in detail together with the individual's C.V.

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