



# *Michael H. Bruno Award 2008*

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# *Michael H. Bruno TAGA Award*

## **Michael H. Bruno TAGA Award**

### ***For Outstanding Contributions to the Graphic Arts Industry***

The Technical Association of the Graphic Arts (TAGA) is an international organization of technologists, scientists, technical and production personnel in the printing and allied industries, and students in accredited graphic arts programs. It was established in 1948 as a forum for reporting on new research and technology in the graphic arts. It has a long history of distinguished annual conferences at which technical papers on graphic arts subjects are presented. The annual volumes of *TAGA Proceedings* are the published records of these papers by leading technical and scientific men and women who have contributed measurably to the progress of printing technology and graphic science throughout the world. The Board of Directors of TAGA hereby singles out a professional with a distinguished career to receive the 2008 TAGA Michael H. Bruno Award as appreciation of his dedicated services and contributions to the advancement of graphic arts internationally.

As evidence of this honor, the awardee will receive the Michael H. Bruno Award. This award is named for the late Michael H. Bruno. Printing was his vocation for his entire working life. He was a kind and gentle man who was passionate about printing and the people who produced it. In his own words, "I had the good fortune to be where the action was during the most active period since printing was invented." We, in turn, were very fortunate to know Mike. Everyone who knew him or knew of him respected him for himself and his incredible knowledge of the industry. What a wonderful legacy to leave for the world.

Presented here is a summary of the accomplishments of this year's distinguished recipient of the Michael H. Bruno.

# Michael H. Bruno TAGA Award

## Michael H. Bruno Award 2008 to Dr. Tim C. Claypole

This year, TAGA honors Dr. Tim C. Claypole with the Michael H. Bruno Award in recognition of his dedication to graphic arts education and research.

Tim C. Claypole, PhD, BSc (Hons), C. Eng, M.I.Mech.E., M.I.E.T., is a Chartered Mechanical Engineer and Chartered Electrical Engineer and is Reader in the Multi-Disciplinary Nano Technology Centre in the School of Engineering, Swansea University, where his main research is the study of printing as a manufacturing process for all applications. Tim's research in printing includes printing of flexible electronics, sensors and biomaterials, as well as graphics and packaging. He is a member of the executive board of the Swansea University Centre for Nano-health and has published more than 100 research papers on printing, 30 of which have been in peer-reviewed journals. In 2002, his paper *An Investigation into Screen Printing Using UV Process Colour Inks* was awarded the Stern Award by the Institute of Oil and Colour Chemists for the best paper published in its journal.

Tim is a native of Cardiff, Wales, UK, where he attended Howardian High School going on to King's College London where he graduated in 1975 with an Honours degree in Mechanical Engineering. After two years with GKN Rolled and Bright Steel as a graduate engineer, he joined the research staff at University College Cardiff. During this period he studied combustion and fluid dynamics, obtaining a PhD in 1980 for his thesis on pollution formation in swirling gas flames. He was appointed to the academic staff of Swansea University in 1986 under the Engineering and Physical Science Research Council "young blood" scheme to encourage the appointment of leading researchers into academic posts and was awarded a prestigious Esso Centenary Award for academic staff. Before focusing his research into printing technology and science, he held research contracts with leading technological companies such as Rolls Royce and AERE Harwell. This led to thirty other research publications and thesis completion guidance for eight PhD and two MPhil students.

His research interest in printing started in 1990 with two major UK government-funded research projects of over \$2 million on heatset web offset, gravure, and screen printing. His research platform was built on this initial activity, and in 1996 he founded the Welsh Centre for Printing and Coating (WCPC) with the support of European Regional Development Funds. The Centre has developed comprehensive laboratories that house all printing processes, ink making, and full analytical laboratories, plus the facilities to handle the prints produced by large industrial trials. The WCPC typically employs 20 postgraduate researchers to study the process physics of graphics, electronics and bio printing, and the transfer of the technology into industry. The WCPC has produced research that has led to fourteen PhD and three MPhil degree awards. The quality of the research in the WCPC was recognized with an award by an Engineering and Physical Science



**Dr. Tim C. Claypole**

# Michael H. Bruno TAGA Award

Research Council grant titled *Effect of the Printing Process on Image Transfer* in 2000, and in 2004 an EPSRC Portfolio Partnership *Complex Fluids in Complex Flows*. These are only awarded by the EPSRC to internationally leading research groups.

Tim is also the founder and director of two university spin-out companies, Swansea Printing Technology Ltd., providing software and support services, and Teclyn, which offers a manufacturing service for electronics and displays.

Tim is a driving force behind the Print Forum Wales, which focuses on raising awareness of advances in printing technology. It runs three two-day colloquia, a strategic summit, and special interest groups every year. Tim has also been responsible for the development of education and training at levels from basic print training through to master's level courses.

Tim has been actively involved with the Web Offset Champion Group since 2002, contributing to the best practice guides on maintenance, environment, and alternative screen technology. He has also been involved with PrintCity, particularly with the recent Value added print on newsprint and UV *best practises* projects.

He is a co-opted member of the board of the European Flexographic Trade Association (EFTA) since 2002. He has worked closely with EFTA in developing standards and improving the science base for the industry. He has also been on the advisory board of the UK Digital and Screen Printing Association since 2000, following his active role in developing four-color screen printing, particularly with UV inks.

Since 1994, Tim has been a British Expert on ISO TC130, working on Working Group 3 "process control and related metrology" and Working Group 4 "media and materials." He was the project leader on the ISO 12647-5 for four-color process screen printing and made major contributions to the standard on four colour flexographic printing, ISO 12647-6, as a project leader writing the first committee drafts of the standard. He also was a project leader on the register pin systems for metallic plates, ISO 11084-2.

An active member of TAGA since 1995, he has contributed several papers to most technical conferences. In 2002 he also provided a tutorial group on maintenance for the printing industry and in 2004 a keynote lecture on micro electronic printing. In 2003 he was the local chair for the second TAGA MEMS micro-manufacturing conference, Swansea. He has been a member of the TAGA board from 2002 to 2008 and has also held the post of honorary treasurer from 2003 to 2005 and was vice president of technical papers from 2005 to 2007.

As a leading academic he has always appreciated the need for a peer-reviewed journal for technical papers in the graphic arts. In 2005, the *TAGA Journal* was under threat of ceasing publication after the first volume. Tim took over as editor, running the peer review process through the WCPC and publishing the *TAGA Journal* through Swansea Printing Technology Ltd, thus ensuring the survival of the *TAGA Journal*.

For all of his accomplishments and his dedication to the association, TAGA distinguishes Dr. Tim C. Claypole with the 2008 Michael H. Bruno TAGA Award.

# *Michael H. Bruno TAGA Award*

## **Previous Honorees**

### **1976**

Michael H. Bruno  
Paul J. Hartsuch  
Frank M. Preucil  
John A. C. Yule

### **1977**

Albert R. Materazzi  
Robert E. Rossell  
Earl I. Sundeen  
William C. Walker

### **1978**

Bernard R. Halpern  
Francis L. Wurzberg, Jr.

### **1979**

Harvey F. George  
Richard E. Maurer  
John McMaster

### **1980**

William D. Schaeffer  
Philip E. Tobias

### **1981**

John F. Crosfield  
George W. Jorgensen

### **1982**

Gordon O.F. Johnson  
Herbert E. Phillips

### **1983**

William F. Schreiber  
William E. Somerville

### **1984**

Robert W. Bassemir  
Kurt Pfahl

### **1985**

Jean Chevalier  
Emilio Gerboni  
Simo T.P. Karttunen  
Bryan H.W. Sunderland

### **1986**

John MacPhee  
J. Tom Morgan, Jr.  
Miles F. Southworth

### **1987**

Werner F. Gerlach  
Warren L. Rhodes  
Kenneth G. West

### **1988**

James R. Cox  
Philip C. Evanoff  
Lawrence A. Wilson

### **1989**

H. Brent Archer  
S. Thomas Dunn

### **1990**

Robert H. Downie  
Dr. Thomas A. Fadner  
Dr. Tapio Lehtonen

### **1991**

Sven Ahrenkilde  
Brian M. Chapman  
Charles E. Rinehart

### **1992**

Richard S. Fisch  
Milton Pearson

### **1993**

Paul F. Borth  
Dr.-Ing. Uwe Gast

### **1994**

Dr. Kurt Schlapfer

### **1995 – Orlando**

Dr. Eiichi Inoue  
Patrice M. Dunn

### **1995 – Paris**

Anthony J. Johnson

### **1996**

Gary G. Field  
David Q. McDowell

### **1997**

Dr. Edward M. Granger  
Raymond J. Prince

### **1998**

Jacqueline M. Fetsko  
Franz Sigg

### **1999**

Joel Rubin  
Walter F. Zawacki

### **2000**

Dr. Mitsuo Kaji

### **2001**

Prof. Dr.-Ing. Helmut  
Kipphan  
Irving Pobboravsky  
Dr. William J. Ray

### **2002**

Takashi Numakura

### **2003**

Nils Enlund

### **2004**

Dr. Harvey R. Levenson

### **2005**

Helene Juhola

### **2006**

Robert Chung

### **2007**

Bruce Blom

# Michael H. Bruno TAGA Award

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