



Ceramic, Composite and Optical Materials Center

Spring 2010 Industrial Advisory Board Meeting

21-23, April 2010

Rutgers University

Wednesday, 21 April

5:30-7:00 Registration and Reception – Fiber Optics Lobby

Thursday, 22 April

7:45 Registration & Continental Breakfast – Fiber Optics Lobby

8:30 Welcome, Rich Haber

8:45 Introductory Remarks, NSF

Armor Subgroup Review and CCOMC Armor Project Review:

8:55 Status Update on National Academy of Science Study “Opportunities in Protection Material Science and Technology for Future Army Applications”, Rich Haber (Committee Member)

9:05 Invited Speaker: Armor Ceramic Materials Characterization at ARL, Todd Jessen, ARL

9:35 Invited Speaker: Fiber Research for Soldier Protection, Phil Cunniff, Natick

10:05 A – Theoretical Calculations in SiC and B₄C, V. Domnich, R.Haber

10:25 Coffee Break

10:45 B - Defining Microstructural Tolerance Limits of Defects for SiC and Al₂O₃ Armor, D. Slusark, R. Haber

11:05 C- B₄C Variability, D. Maiorano, R. Haber

11:25 D- Variability in SiC Powders, R. Haber, V. Domnich

11:45 E(a)- NDE, S. Bottiglieri, R.Haber

12:15 Lunch, Busch Campus Faculty Dining Facility

- 1:10 E(b)- NDE, A.Portune, R.Haber
- 1:30 F- Effect of Machining on Residual Stressing in Ceramics, A. Mann, R. Haber
- 1:50 G- Sintering Modeling in SiC, J.Matthewson, R.Haber
- 2:10 H- Chemical Uniformity in Ceramic Powder Processing, J.Kohl, R. Riman
- 2:30 I- Bulk Assembly of Nano Particulates, M. Jitianu, R. Haber
- 2:50 J- Performance improvement of flexible Dye Sensitized Solar Cells using templated TiO₂ coatings deposited by commercial techniques, D. Birnie
- 3:10 Break
- 3:30 K- Review of COMSET and New Projects as part of CCOMC from Clemson, J. Ballato and Phil Brown
- 4:30 Invited Speaker: Overview of Federal Opportunities; Strategies for R& D, Market Development, and obtaining Funding to Execute, Tobin McGregor, SMI, Washington, DC (see last page of agenda for information)
- 5:15 Poster Session and Reception – Busch Faculty Dining Facility
- 6:00 Banquet, After Dinner Speaker, Dean Tom Farris, College of Engineering, Rutgers

Friday, April 23

(note: For Members not wishing to attend the IAB meeting facility tours can be arranged, see M.Sole for details)

INDUSTRIAL ADVISORY BUSINESS MEETING — Fiber Optics Auditorium

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| 7:30 | Continental Breakfast (Fiber Optics Lobby) |
| 8:00 | Site Reviews |
| 8:30 | Discussion on Recruiting Efforts with the Center |
| 8:45 | NSF Evaluator Review, Steve McGregor |
| 9:45 | Technical Session and Strategic Planning, IAB Closed Session |
| 10:30 | Break |
| 10:45 | Future Directions of Programs and New Initiatives |
| 11:30 | Adjourn (box lunches will be provided) |

Ceramic Association of New Jersey Program

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| 1:30 | Introduction, Program Chair and CANJ President, Martina Sabourin |
| 1:35 | Quartz Crystal Resonators and Their Impact on Humanity, John Vig, Past President of IEEE |
| 2:15 | Photoactivated Switch Based on Diamond Doped Carbon Nanotube, SiC Thyristor and GaAs VCSEL, Moncef Tayahi, ECE Dept, Rutgers Univ. |
| 2:55 | Novel Crystalline Semiconductor Core Optical Fibers, John Ballato, Clemson |
| 3:35 | Break |
| 4:00 | <i>M.G.McLaren Distinguished Lecture: Piezoelectricity: Curious Genealogy and Unobvious Attributes, Arthur Ballato, Chief Scientist, CECOM, Fort Monmouth, NJ</i> |
| 6:00 | Reception, Busch Campus Center |
| 7:00 | Banquet and Special Awards |

Information on Tobin McGregor and SMI

Talk Title: Overview of Federal Opportunities; Strategies for R& D, Market Development, and obtaining Funding to Execute.

SMI Overview:

For over a decade, Strategic Marketing Innovations (SMI) has been the premier choice in Washington for companies, universities, nonprofits and public entities seeking to secure federal funding and public policy for technology development. SMI works in conjunction with clients and decision makers within Congress, the Pentagon, Homeland Security and other Executive Branch agencies to develop and commercialize technology solutions for the nation's most pressing challenges.

Tobin Bio:

Tobin McGregor is a technology management professional with 15 years of experience in federal technology transfer and commercialization. Mr. McGregor joined SMI in 2004 and presently serves as Vice President. He has worked extensively within the defense and aerospace industries and across a broad spectrum of technical disciplines. In 2000, Mr. McGregor founded Avant Garde Corporation providing services to small- and medium-sized companies and "start ups" in the areas of federal R&D program development and management, technology commercialization strategy, enterprise formation and business planning, as well as product development assistance.

Prior to forming Avant Garde Corporation, Mr. McGregor served as Manager of Technology Transfer and Commercialization for the National Institutes of Standards and Technology's Manufacturing Extension Partnership program (MEP) where he was responsible for the implementation and management of technology transfer and commercialization programs throughout the U.S.

Mr. McGregor began his career with the National Aeronautics and Space Administration within the Office of Advanced Concepts and Technology. McGregor's involvement with NASA lasted nearly ten years and included assignments with the Missile Defense Agency's SBIR program and the National Technology Transfer Center.

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