R1 Berkshire Section Annual Report

### Prepared by James McVeigh on July 14, 2016

# Summary

1. The IEEE Berkshire Section has held six EXCOM meetings to date, one each month in 2016.

 The members of the EXCOM are:

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| Section Chairperson – James McVeighVice Chairperson – Rich KolodziejczykSecretary – David RuegerTreasurer – Roger ManzoliniPower Chapter – David RuegerComputer and Control Chapter – Rich KolodziejczykPast Chairperson – Bert Prichard, David Rueger | Awards Chair – VacantMembership Chair – VacantEducation Chair – Jill McKennonPACE Chair – Rich KolodziejczykConsultant Network Chair – Rich KolodziejczykLife Member Affinity Group – Bert PrichardNewsletter – Rich KolodziejczykWebmaster - Rich Kolodziejczyk |

In addition to the monthly EXCOM meetings, the IEEE Berkshire Section has completed Four meeting events so far in 2016.

* Engineers Week Event - PE Licensure for Engineers
* Annual Meeting Event with the Winners of the IEEE Berkshire STEM Research ChallengeContest
* Electric Power Systems – the Old, the Modern, and the Future
* The Berkshire Innovation Center

A PACE project tiled “2016 IEEE Berkshire STEM Research Challenge Contest”, was completed. The project plan and the final report were submitted in June of 2016 and the Berkshire Section has received reimbursement from Region 1 PACE.

1. The Region 1 Meeting in Mystic, CT will be attended by James McVeigh, Section Chair and Vice Chair Rich Kolodziejczyk.
2. The IEEE Berkshire Section expenses to date are in line with the 2016 Budget.

# 2015 Accomplishments

In addition to twelve EXCOM meetings, the following meetings were organized and held by the section.

**February**

The IEEE Berkshire Section Life Member Affinity Group hosted a technical dinner meeting for National Engineers Week.

The event was titled, Perspectives on STEM Education By Andrew S. Miller.

Science, Technology, Engineering, and Mathematics professionals are in demand and the supply is wanting. Government and industry concerns have motivated STEM activities and funding for grades K - 16 to increase the supply. What shape are these activities taking? What are the roles played by colleges, high schools, and elementary schools in the preparation for STEM careers?

**May**

The IEEE Berkshire Section hosted the annual dinner meeting during which the winners of the STEM Research ChallengeContest spoke about their papers. The meeting was organized by Education Chair George Haus.

Grades 9/10 prizes:

 1st "A Post-Antibiotic Era: The Consequences of Antibiotic Resistance"

 2nd "Nature vs. Nurture: Athletic Ability"

 3rd "On The Study of Dark Matter"

Grades 11/12 prizes:

 1st "Synthetic Platelets: Refining Nature”

 2nd "Dark Matter"

 3rd "Tokamaks, A Clean Energy Solution"

**April**

The Power Chapter hosted a meeting on “UHV Transmission Lines Worldwide” By Dr. George Gela, BETC

Overhead high-voltage transmission lines in the 800 kV class were built in North America in the 1960s and 1970s. In the last few decades, even higher voltage lines have been designed, constructed and put into operation in Russia (1150 kV, but operated now at 500 kV ), China, Japan, and India. Research up to the UHV level of 1500 kV was performed in Lenox and several other laboratories throughout the world.

This talk gave an overview of UHV lines in the world, with special emphasis on China, and Dr. Gela’s recent trip to participate in the Celebration of the 60thAnniversary of Live Working in China in November 2014. The meeting was organized by Power Chapter Chair David Rueger.

**July**

The Power Chapter hosted a meeting on Study of Lightning Effects - Kennedy Space Center

Presented by Frank Fisher. Frank will gave a presentation on the topic of lightning effects at Kennedy Space Center (KSC). Frequent lightning activity in Florida necessitates the need for well-designed protection systems at critical facilities such as KSC. Space vehicle launches require protection against direct lightning strikes, including their indirect effects, as well as nearby strikes. This talk provided insight into the engineering challenges associated with this topic. The meeting was organized by Power Chapter Chair David Rueger.

**August**

The Computer and Control Chapter (C&C) hosted a dinner meeting on Mobile Devices: A Look At Smart Phones, Tablets, and Wearable Technologies By Michael Glaberman, MSG Computers + Genesis10

**September**

The Computer and Control Chapter (C&C) hosted a lunch meeting on Can Control Science Bring New Insights to Stock Trading Research? by Ross Barmish ECE Department, University of Wisconsin a lecture presented at the 2013 IEEE Conference on Decision and Control - Florence, Italy, December 2013 by Ross Barmish.

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**October**

The Berkshire Consultants Network hosted a dinner meeting on Financial Planning By

Stephen Hodgetts and Tucker Roeder*,* McAdam Financial, LLC. The discussion included

 Comprehensive Financial Planning

* Overview and Benefits vs. Traditional Money Management

 Factors to Consider in Retirement

* Withdrawal Strategies and Risks
* Taxes and Required Minimum Distributions
* Social Security Strategies

**December**

The Berkshire Consultants Network hosted a dinner meeting on Tax Reduction with Financial Planning By Stephen Hodgetts and Tucker Roeder*,* McAdam Financial, LLC

The topics included “Reducing Taxes Today - Reducing Income”, “Increase Your Tax Deductions”, “Reducing Taxes in the Future - Utilizing Alternative Savings Strategies” and “Developing an Efficient Income Strategy”.

**Plans for 2016**

The IEEE Berkshire Section is planning to conduct the 2016 Berkshire IEEE STEM Research Challenge Contest.