**Title:** "A 21st Century Approach to Teaching Electricity and Magnetism – Real World Applications"

**Purpose:** This workshop is designed to help teachers enhance their understanding of electricity and magnetism via hands-on activities that can be used as part of differentiated instruction, and a targeted standards-based discussion of real world applications.

**Facilitators:** K. Cummings (SCSU), C. Broadbridge (CRISP), K. Beitler (CCSA), P. Dimoulas (CCSA), A. Britchi (CCSA) and C. Jenkins (CRISP).

**Guest Speaker:** Industry representative

**Agenda:**
8:00-8:15am: Sign-in, refreshments
8:15-8:20am: CRISP/CCSA welcome and overview [C. Broadbridge/S. Akella]
8:20-8:35am: Pre-assessment [K. Cummings]
8:35-9:15am: Hands-on activity 1 (Building an Electromagnet) and discussion [K. Cummings]
9:15-9:30am: Break/networking
9:30-10:30am: Hands-on activity 2 (DC Motors), discussion and post-assessment [K. Cummings]
10:30-11:15am: Industry representative
11:15-11:45am: Common core reading & differentiated learning share and wrap-up [CCSA]
11:45-12noon Post survey and distribute the take home kit on DC Circuits, one kit per participant.

**Audience (30 participants):**
Priority given to 7th-9th grade science & special education teachers

**Topics/Goals for the Workshop:**
1. 9th grade [Q4; Unit 6] – taught early April [Core concepts/instructional practices]
2. Hands-on activities: DC circuits and using electricity to generate magnetism
3. Applications of EM to manufacturing and technology - Industry representative
4. Common core literacy - CCSA to facilitate discussion
5. Differentiated instruction – CCSA to facilitate discussion

**Methods of Assessment:**
Teachers - pre/post content [Karen Cummings will provide based on information provided by NHPS Science Superintendent, R. Therrian]. Pre/post attitude
assessments developed by CRISP evaluation consultant Nicole Ferrari [and/or STEBI for Somi’s research].