ICPE2018



Contribution ID: 123

Type: Oral Presentation

Making Physics Relevant: Getting teachers to look beyond the Physics that they teach

Monday, 1 October 2018 17:20 (20 minutes)

Amid the information and technology revolution (aka 4th industrial revolution) many researchers have bemoaned the apparent decline in interest in the natural sciences (especially Physics) exhibited by high school students in many developed and developing countries. Researchers have attributed this decline to the growing alienation between Physics and everyday living. In developing countries Physics is seen as the preserve of the intellectually elite, and many "average" students shun it because of its perceived complexity as well as its irrelevance to meeting the needs of daily living. In developed countries many researchers similarly report a marked decline in the popularity of Physics despite the fact that these communities are awash with Physicsdriven technological innovations.

This study seeks to rekindle public understanding and interest in Physics by highlighting the relevance of Physics applications in everyday living. The study focuses on how Physical Sciences teachers could be exposed to the real life applications of the Physics that they teach, and how these physics principles influence their physical and psychological experiences. If teachers can be inspired, motivated and convinced of the relevance of Physics in everyday living, they can in turn motivate their learners to enjoy Physics and this could stem the tide of dis-interest in the natural sciences. For developing countries, increased interest in science could result in a wider human resource base available to spearhead the country into the 4th industrial revolution.

The presentation discusses the strategies used to garner interest among physical sciences student teachers and the reflections of these teachers after the intervention.

Apply to be
 considered for a student
 award (Yes / No)?

No

Level for award
 (Hons, MSc,
 PhD, N/A)?

No

Primary author: Dr MUSHAYIKWA, Emmanuel (University of the Witwatersrand)

Presenter: Dr MUSHAYIKWA, Emmanuel (University of the Witwatersrand)

Session Classification: Parallel Session 1

Track Classification: Track H - Teacher Education and Training in Physics