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Challenge Based Learning (CBL) : Innovative Enhancement of PPE Design for Construction Workers - Ironman 1.0

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Abstract:

Challenge Based Learning (CBL) provides an efficient and effective framework for learning while solving real-world challenges. The framework fuels collaboration to identify big ideas, ask thoughtful questions, and identify, investigate and solve challenges. CBL helps learners gain deep subject area knowledge and develop the skills necessary to thrive in an ever-changing world.

Iron Man wears his armor with excellent protection to fight with his enemies. Potential hazards in site are main enemies to workers. Similar to like Iron Man's one, a smart armor for workers providing full protection is our Challenge. Innovative improvement of Personal Protective Equipment (PPE) will be our focus.

Hazards are everywhere in the site; it is hard to prevent occurrence of accident completely. Since frontline workers in construction site must wear PPE at all times by OSH regulations, PPE is "last line of defense" to protect the workers. Better design and quality of PPE lead to better protection to worker and hence to reduce the severity of injury or cause non-fatality.