

Opportunity Title: Emerging Technology Vulnerabilities

Opportunity Reference Code: IC-16-36

Organization Office of the Director of National Intelligence (ODNI)

Reference Code IC-16-36

How to Apply **Create and release your Profile on Zintellect** – Postdoctoral applicants must create an account and complete a profile in the on-line application system. **Please note: your resume/CV may not exceed 2 pages.**

Complete your application – Enter the rest of the information required for the IC Postdoc Program Research Opportunity. The application itself contains detailed instructions for each one of these components: availability, citizenship, transcripts, dissertation abstract, publication and presentation plan, and information about your Research Advisor co-applicant.

Application Deadline 4/15/2016 6:00:00 PM Eastern Time Zone

Description Emerging technologies are those technical innovations which represent progressive developments within a field for competitive advantage.¹ Technological breakthroughs are a great agent of change as they promise solutions to pressing global challenges. In the last few years, the use of several emerging technologies has increased. Although some of these technologies have been around for years, they are now becoming more widely used or incorporated into everyday life.

The technologies offer great benefits yet pose potential security problems or unintended ethical consequences. A large number of these emerging technologies are potentially open to compromise or attack by outside entities, which may lead to unplanned results if acquired by persons with nefarious intent. The goal of this effort is to determine what vulnerabilities exist within emerging technologies, and how the technology user can guard against these or other vulnerabilities. Tools and techniques may also be developed to examine vulnerabilities.

Various emerging technologies of interest include, but are not limited to:

- Biometrics
- Internet of things or Internet of everything, including Smart Cities and Smart Grids
- Screenless displays
- Mobile collaboration
- Additive manufacturing
- Unmanned vehicles
- Dark web
- Cryptocurrencies
- Genetic engineering to include CRISPRs

Example Approaches:

A successful proposal should examine one particular emerging technology (including, but not limited to, those listed above) in order to answer at least one of the following questions:



ORISE GO

The ORISE GO mobile app helps you stay engaged, connected and informed during your ORISE experience – from application, to offer, through your appointment and even as an ORISE alum!

Visit ORISE GO 

GET IT ON
 **Google Play**

 Download on the
App Store

Opportunity Title: Emerging Technology Vulnerabilities

Opportunity Reference Code: IC-16-36

- What vulnerabilities are associated with the technology and its use?
- What steps an individual should take to guard against attack or compromise when using the technology?
- What consequences could result if the technology is compromised, attacked, or leveraged for nefarious purposes?

¹ International Congress Innovation and Technology XX1: Strategies and Policies Toward the XXI Century, & Soares, O. D. D. (1997) Innovation and technology: Strategies and Policies. Dordrecht: Kluwer Academic.

- Eligibility**
- Requirements**
- **Citizenship:** U.S. Citizen Only
 - **Degree:** Doctoral Degree.
 - **Discipline(s):**
 - **Business** ([11](#) 👁)
 - **Chemistry and Materials Sciences** ([12](#) 👁)
 - **Communications and Graphics Design** ([6](#) 👁)
 - **Computer, Information, and Data Sciences** ([16](#) 👁)
 - **Earth and Geosciences** ([21](#) 👁)
 - **Engineering** ([27](#) 👁)
 - **Environmental and Marine Sciences** ([14](#) 👁)
 - **Life Health and Medical Sciences** ([45](#) 👁)
 - **Mathematics and Statistics** ([10](#) 👁)
 - **Other Non-Science & Engineering** ([13](#) 👁)
 - **Physics** ([16](#) 👁)
 - **Science & Engineering-related** ([1](#) 👁)
 - **Social and Behavioral Sciences** ([28](#) 👁)