Overview
Critical Infrastructures (CIs) are those systems, resources and processes, whose destruction or disruption, even partially, may, directly or indirectly, strongly affect the normal and efficient functioning of a country (e.g., transportation, financial, power grid). The increasing success of IT technologies, together with the progressive reduction in the use of dedicated communication networks, are bringing to the fore a new way of controlling and managing CIs, which are currently organized as strictly connected, albeit different, elements of a single system, rather than as autonomous entities to be appropriately integrated. Control systems for critical infrastructures, named SCADA (Supervisory Control And Data Acquisition) systems, are rapidly moving from dedicated and proprietary solutions towards IP-based integrated frameworks made of Commercial Off-The-Shelf (COTS) components. Unfortunately, this technological trend introduces new security issues, since in the new scenario CIs are increasingly exposed to cyber-threats. Big Data analytics has been used successfully in a number of fields, such as forensics and cloud computing security. However, there are still a number of fields for which the benefits of Big Data analytics have not been explored: critical infrastructure protection is one of them. Critical infrastructure protection is a very rich use case for Big Data analytics: the large scale of such systems produces a huge amount of data that should be collected and analyzed to protect the infrastructure from security threats. Since Big Data analytics has the ability to process massive amounts of data, it can be leveraged to improve the performance and coverage of the cyber-attack detection process and, then, to enhance the protection of critical infrastructures.

The topics of interest for Big4CIP include (but are not limited to):
- Stream processing for SCADA security
- Security Information and event management for critical infrastructures
- Big Data collection and correlation for Critical Infrastructure Protection
- Security and privacy for Big Data
- Threat and vulnerability analysis in Big Data
- Intrusion Detection and Response in Big Data
- Data-driven failure and attack analysis
- Data formats and collection protocols
- Trust models for Big Data
- Algorithms and methods for Big Data analytics

Submission
All submissions must be made electronically through the EasyChair submission web page
https://www.easychair.org/conferences/?conf=big4cip

Important dates
Paper Submission: December 1st, 2013
Acceptance Notification: February 15, 2014
Camera-ready: March 15, 2014

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