
Dear Reader:

The Internet of Things is rapidly becoming reality. According to a recent IDC study, 2019 investment in IoT is expected to increase 15% over 2018 to reach almost three quarters of a trillion dollars. Much of this spending will be in Industrial IoT. IDC 2019 spending estimates include \$119 billion in discrete manufacturing, \$78 billion in process manufacturing, \$71 billion in transportation and \$61 billion in Utilities. This growth in spending recognizes the tremendous business opportunities that IoT is offering to every aspect of industry.

In this issue we focus on Artificial Intelligence (AI), a topic dominating the IoT discussion in both the public and private sectors. Knowledge Reasoning, Planning, Machine Learning, Natural Language Processing, Computer Vision and Robotics are aspects of AI with a direct relationship to IoT. Equally important is how ethics plays into the equation of your AI/IoT integration. There is much to consider regarding AI. What are the potential benefits that AI brings to the table? How should you address it in your organizations' overall strategic and implementation approaches to AI and IoT?

- The co-chairs of the IIC Industrial Artificial Intelligence Task Group – representing ABB Corporate Research, Futurewei Technologies and SAS – offer an overview of AI in IoT
- Our guest from James Bellows and Associates provides insights into early development of AI diagnostics at Westinghouse and moving diagnostics into a digital environment.
- Our testbed interview this month features the IIC Deep Learning Facility Testbed. Members from Dell Technologies, SAS and Toshiba discuss the results from this testbed which has been deployed at the Toshiba Smart Community Center in Kawasaki, Japan and the SAS Smart Campus in Cary, North Carolina.
- An expert from SAS provides insight into the Artificial Intelligence of Things (Artificial Intelligence + Internet of Things), how IoT will become a state, and how AIOT is a superhuman accelerator of business performance, combining different AI technologies to realize the highest returns on investment.
- A trio of authors from Finland's DIMECC Limited investigate the burgeoning AI skills gap and its impact on AI adoption. They provide solid recommendations for the public and private sector to address the AI skills gap.
- A trio of academics from the University of Warwick and the American Association for the Advancement of Science share their thoughts on AI strategies with an eye towards the social implications of AI technologies, products and services.
- Members of the IIC Security Working Group – representing Fujitsu, IGnPower, Irdeto, LHP Engineering Solutions and Wibu-Systems – look at the risks, challenges and opportunities of AI on IoT system trustworthiness.

We hope you enjoy this edition, and encourage you to reach out to us for opportunities to publish your own thought-provoking topics in future editions.

Best Regards,

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