New Zealand IoT Alliance

IoT Half Day Conference

Auckland
3 October 2019

Event Summary

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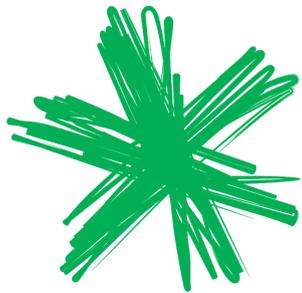
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Conference Agenda

John McDermott john@johnmcdermott.nz	IoT Auckland Meetup; IoT Alliance Executive Council *Event MC and co-organiser*
Jannat Maqbool Jannat.Maqbool@wintec.ac.nz	Wintec, Smart Cities Advisor for Hamilton City Council; IoT Alliance Executive Council *Moderator for Smart City panel*
Adam O'Connor adam@nbsmartcities.com	NB Smart Cities *Smart City infrastructure for efficient services and safer streets*
Matt Hector-Taylor matt.hector-taylor@iotventures.net	IOT Ventures *Peace of mind for carers of vulnerable or elderly to support living well and safely in their own home for longer*
Ilya Vensky ilya@o2o2.co	O2O2 *IoT Facewear providing better air for life*
Kevin Marrett Kevin.Marett@leapaust.com.au	LEAP Australia *Product development technologies that reduce costs, improve quality and increase productivity*
Angelique Grieve Angelique.Grieve@sas.com	SAS; IoT Alliance Executive Council *Moderator for Industry 4.0 panel*
Darren Wilkinson darren.wilkinson@lmac.co.nz	LMAC Consulting *Using Machine Learning to recommend optimal configurations of production processes on the shop floor*
Vikram Kumar vikram@kotahi.net	KotahiNet *Environmental monitoring of electric transmission cables to improve and predict operational performance and to aid staff and public safety*
Brett O'Donnell brett@ento.co.nz	Ento *Our IoT Journey into Smart Applications*
Andy Grant andyg@tptgroup.co.nz	ASG Technologies *Collaborative partnerships in managing the disruption landscape*
Kriv Naicker kriv.naicker@synaptec.co.nz	Synaptic; Chair IoT Alliance
Melissa Lee melissa.lee@parliament.govt.nz	National Party

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IoT Alliance

2019
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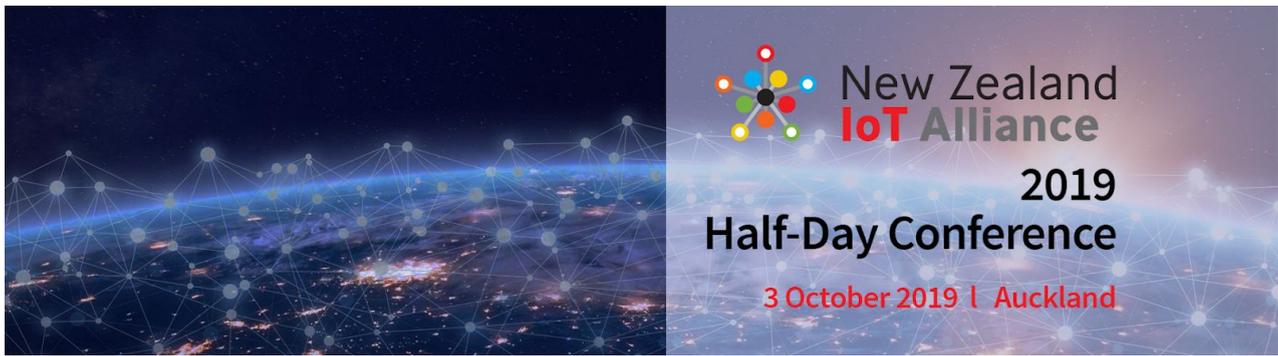
The NZ IoT Alliance Half Day IoT Conference was well attended with 120 people making time to hear case studies of real experience in implementing and deploying IoT Solutions in New Zealand.

The event covered topics of Smart City and Industry4.0 with a surprisingly broad mix of examples.

Jannat Maqbool from the Waikato Digital Initiative and Singapore's Ecosystm introduced the first session on Smart Cities with examples of the benefits to society of a smart city strategy.
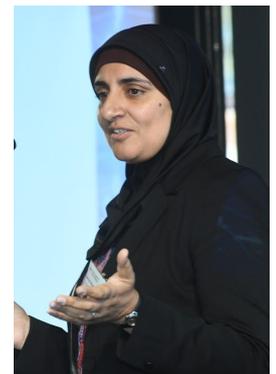
Adam O'Connor opened the presentations with a detailed review of the implementation of LED street lights for South Waikato District Council. This set a trend in the presentations of readily apparent return on investment business cases, clear non-monetary benefits that deliver on organisation purpose, and occasionally surprising insights from data analytics that create long lasting value.

BeSure, presented by Matt Hector-Taylor, showed how relatively simple and unobtrusive sensors coupled with artificial intelligence analytics will enable vulnerable people to live more independently, at lower cost of service delivery but without compromising quality of care.

Ilya Vensky of O2O2 wowed the room with the smart Facewear technology that uses unique air filtering to ensure city dwellers can breath healthy in polluted atmospheres. By using a connected system the data generated provides insights for city and health managers to improve livability for all the population. There is a remarkable roadmap from O2O2 with many different applications of their technology.

LEAP Australia, the event silver sponsor, showed the results from a recent hackathon at University of Auckland. Kevin Marret explained how students used IoT and Augmented Reality technologies to address a variety of real world situations. It was invigorating to hear from the students how they were able to rapidly produce working prototypes and demonstrate new ways of collecting and presenting data to create meaningful results.

Anglique Grieve from SAS introduced the Industry 4.0 session with an outline of how data analytics enables efficiency and opportunity.

Darren Wilkinson from LMAC presented an industrial example where factory process data was used to optimise and reconfigure an electronics production line. Again using AI methods LMAC generated a 37% improvement in production line throughput without any additional capital investment.

KotahiNet have created a world first monitoring system for Transpower, the national grid power operator. Vikram Kumar explained how IoT is used to report on the height of power lines and warn if the distance above ground is risking safety margins. AI is used to analyse the influence of air temperature, power flows and other factors so that Transpower can create better predictions of power flows. The end result is safer operation, lower running costs and using the greater use of the lowest cost generation stations.

Brett O'Donnell from Ento also had an electric utility use case, but this time for a distribution utility concerned with aging power poles. Ento deployed sensors that monitor pole lean and warn of a risk of falling over. A key concern where poles are aging and there have been safety incidents. Similar to KothiNet, this application also needed low cost, battery powered wireless sensors that would last many years without maintenance.

Andy Grant from ASG Technologies advocated using an agile approach to projects. Innovation is inherently a risky process, but by collaborating with knowledgeable and trusted partners it is practical to apply new technology. An agile and iterative approach has enabled infrastructure organisations to learn how IoT can be applied to improve asset performance, reduce operational costs, and enhance staff and public safety.

Kriv Naicker, chair of the IoT Alliance congratulated all of the speakers for the range of topics and experiences shared. Kriv summarised the purpose of the IoT Alliance to support and encourage the development and deployment of IoT Solutions. He said there were many more new opportunities and welcomed enquiries to join the IoT Alliance.

The event closed with a lively speech from Melissa Lee, National MP and spokesperson for spokesperson for Broadcasting, Communications and Digital Media & Ethnic Communities. Ms Lee committed to a strategy for AI and commented on the importance of broadband networks for an efficient and innovative economy. If National return after the next election Lee will also look at the need for a national Chief Technology Officer position and asked the audience for views on what the CTO role would be a champion for.

Common threads in the presentations were that technology readiness for scale is well developed with lower costs than anticipated, but the project process can be uncertain. Return on investment for projects seemed to be clear, but an agile plan was needed so that scope and development was focussed on tangible benefits to the client or public. Critical in most cases was a close engagement with the client throughout a project so that uncertainty and risk was understood equally and managed as a partnership.

From a technology point of view, many examples also used artificial intelligence to create value from data. IoT is not just about the 'thing' but rather the outcomes and insights generated that benefit organisations and the public.

The IoT Half Day Conference created a lot of buzz with relationships created and strengthened. A telling comment was that the previous years event had been more startup focussed at the idea and proof of concept stage. This year we heard about deployed examples of IoT and Industry4.0 that were generating tangible benefits and value. This observation underlined the progress that organisations are making with technology proven to be ready for scale up and the innovation process being well understood for real world challenges.

Feedback from the audience and presenters was positive about the value of the event. New opportunities have been created and enthusiasm generated for more progress in using IoT solutions.

With thanks from event co-organiser, John McDermott

Event Contacts

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https://techalliance.nz/

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