Applus Canada

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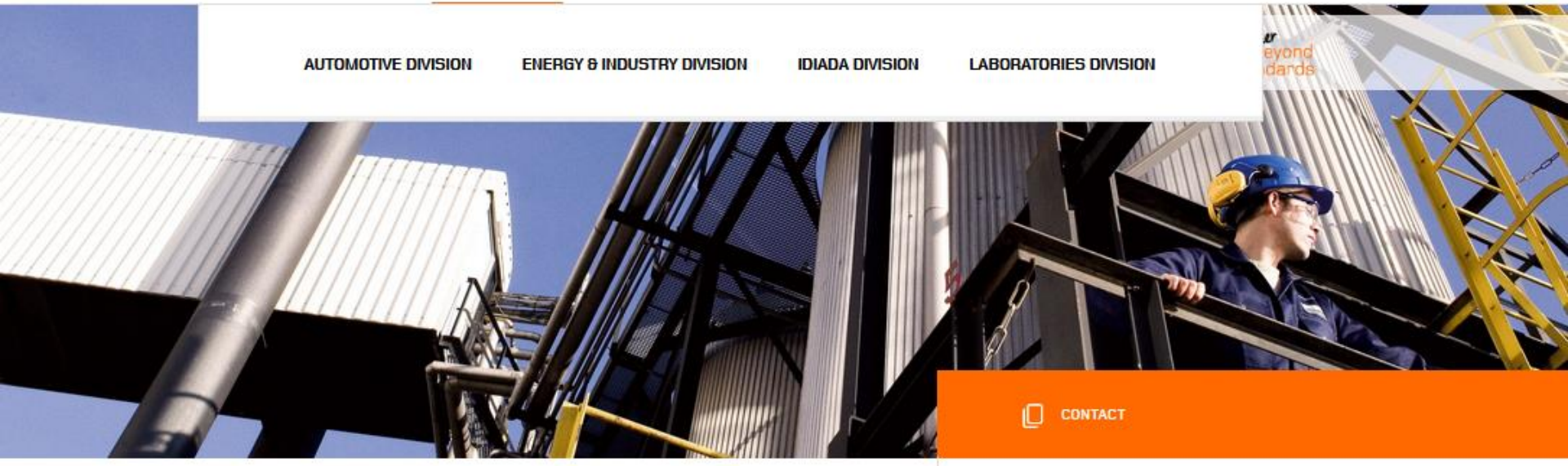
Manager of Adv. Engineering Services

NGen Next Generation Manufacturing Canada



CONTACT

Engineering and Consulting

The field of engineering and consultancy involves the application of up-to-the-minute knowledge and technologies to design, develop and enhance client products, services or facilities.

The wide variety of technical disciplines on offer within Applus+ makes us the ideal technological partner for bringing about improvements. Our hallmark is our commitment to quality, innovation,

Renewable energy industry growth at Applus+

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PROJECT DESCRIPTION:

Hybrid Digital Twin platform that combines end-to-end deep learning models, Finite Elements (FE) simulations, & Laser scanning to control manufacturing with minimal data.

For example, real time control of shape, geometry and tolerance of additive manufactured parts. Life cycle management and projection of service conditions for manufactured parts based on real time history of manufacturing and detection of the weakest point of performance.

PROJECT OBJECTIVES:

- . Pilot project for implementing Hybrid Digital Twin in a manufacturing process with minimal/no data
- . Solving or controlling a manufacturing problem through our hybrid digital twin
- . Evaluation of performance and effectiveness of the platform in advanced manufacturing ecosystem

PROJECT DURATION:
12-18 months

STARTING MRL LEVEL:
5

ENDING MRL LEVEL:
7

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OUR EXPERTISE AND ROLE IN THE PROJECT:

- .End-to-End Machine Learning Implementation & Development
- .Computing Power & State-of-the-Art Simulation Packages and Expertise for Manufacturing Modeling
- .Interactive Data Management with Manufacturing including Collection, Processing, Analysis, & Data Mining
- .Extensive Engineering Experience in Metallic Parts and Structures Specially with Welding & Joining

EXPERTISE WE ARE LOOKING FOR:

- . Industrial partners that are looking for a Digital Twin Solution for complex manufacturing process and suffer from having no data. Preferably metallic component involving welding or metal deposition.
- . Computational infrastructure partner(s) for the implementation of DTs as a Service (DTaaS), i.e. cloud computing, data infrastructure, etc.
- . Smart sensor and data collection partners, i.e. laser scanners, lidar scanners, ultrasonic, etc.

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