PROJECT SUMMARY

Ref No.: MRC-HPC-RIG-A12	Title: Bus CONTROLS (Capturing Operationally Needed Trip Data via Remote On-Line Sensors)

Local Company: University of Mauritius

Collaborating Institution: The Cloud Factory EMEA Ltd.

Project Leader	
Mr Anshu Prakash Murdan	University of Mauritius

Research Collaborators	
Name	**Organisation**
Dr Vishwamitra Oree	University of Mauritius
Dr Abdel Khoodaruth	University of Mauritius
Dr Oomesh Gukhool	University of Mauritius
Mr Roshan Halkhoree	University of Mauritius
Professor Marcus Enoch	Loughborough University

TECHNICAL ABSTRACT

Public bus transit systems are essential services to the sustainability and equity of any country. However poor bus service reliability is often reported to be a major reason for travellers choosing to travel by car instead of by bus. This not only directly impacts on the financial and operational viability of bus companies, but also indirectly leads to higher levels of traffic congestion, energy use, carbon emissions and air pollutants across the transport network. This project (named Bus CONTROLS) aims at providing solutions for the unreliability of bus services by making use of Internet of Things (IoT) based approaches, through low-cost state-of-art sensors, actuators, microcontrollers, cameras, cloud storage and an online HPC server. Bus CONTROLS will provide a low-cost solution for Bus tracking, Passenger Information System, as well as Bus Travel Time Estimation. Once the technical feasibility and cost-effectiveness of this project have been demonstrated through the "proof of concept" prototype, there exists substantial scope for commercialisation of the product as a complete customised turnkey solution, consisting of the hardware, software and online HPC server. Besides bus companies and travellers will

benefit significantly from the system as they will save on waiting time and may better plan their journeys.