

Research Challenge Proposal

Date: 10 July 2017

Team Number: 7

Team Name: 7-up

Problem Title: (One Sentence description of the challenge)

Non-Invasive Sensory Approach to support children with Autism

Research Objectives: (Include broad aims as well as specific research questions to be addressed)

- ☒ To develop a support system to assist children with autism to prevent meltdowns.
 - i) to understand the behavioural patterns and bodily reactions of the children with autism.
 - ii) to develop an algorithm to detect signals before meltdown.
 - iii) to develop a device and a correspondent App.
 - iv) to build up a connection between children with Autism and existing support centres.

Approach: (Methodologies and methods to be followed; refer to known research or literature if appropriate)

- ☒ The study will be followed mixed method approach including qualitative and quantitative data collection.
- ☒ Existing literature will be reviewed to find the gap and scope of the research.
- ☒ A diversified group of people will work as researchers comprising of people from medical science, psychology, IT and social science.
- ☒ Study of sensor outcomes depending on the bodily reactions.