After consideration of the different approaches that could be taken with regards to the project direction, it was decided that the most relevant/suitable direction would be to explore air cooling and phase change material systems as the optimal management systems. This decision was based on the fact that with both systems there are several parameters which can be explored that would aid the battery performance. This will allow the project to investigate multiple input parameters and reach a conclusion as to how the process can be optimized. They offer simple and effective thermal management solutions utilizing natural convection and conduction processes with no need for additional power supply apparatus; this simplifies the design system and reduces the weight of the BTMS. Furthermore, an investigation into these systems will help explore some of the gaps in the available literature, making the project more useful to industrial applications.

Though heat pipes and submersion of the cell in liquid coolant are effective in reducing cell temperature, they introduce added weight and complexity and require energy-consuming parts such as pumps which take away from power that could otherwise be supplied to the wheels. In place of these systems, the focus will be evaluating the use of PCM and other innovative solutions that are simple and effective including options to increase thermal conductivity of the cell through addition of graphene nanoparticles and the targeted use of a cooling channel that directs flow to the hotspot in the cell.