

1154-97-1478 **Wisam Bukaita*** (wbukaita@ltu.edu), wbukaita@ltu.edu, Southfield, MI, 4807, MI 48075. *The students from knowledge receiver to the pivot of the group leader.* Preliminary report.

Implementing project-based modeling in differential equation class reflects an amazing improvement in understanding differential equations concepts and how to utilize this tool in a real-life problem. Students explore through differential equations modeling a virtual experience can be formed by launching a new journey based on differential equations modeling. Instead of limiting differential equations knowledge within the classroom walls, students discover that the real differential equations are outside the classroom, and the classroom's lectures are just a window to see that. After utilizing differential equations tools in a real-life problem, the students beginning a valuable journey to read, to search, to discover, to analyze, and to design math solving a real problem. After performing the project, the students become a researcher, a designer, a problem solver or a decision-maker. (Received September 15, 2019)