Date: 26/4/2019

**Summary Report on WIT & WIL**

**(Daily Report)**

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| **Name of the Faculty: V Ganesh Kumar** | | | **Name of Subject: LAODE** |
| **Class/Section: I B.Tech. II Sem/ CSEC** | | | |
|  | Grid Reference No.: | 4.1.4 | | |
|  | Scenario Reference No.  (Mapping with Syllabus) | 2C:\Users\Tintu\Desktop\2018-19\Even Sem\LAODE\Images\ode4.pngC:\Users\Tintu\Desktop\2018-19\Even Sem\LAODE\Images\ode5.jpg | | |
|  | Topic covered in every class | Revision of ODE of Higher order | | |
|  | Brief write-up (500 words) for every class: | Application of differential equations is in modeling the amount (or concentration) of a substance in a well-stirred tank/vessel subject to constant in-flow and out-flow. simple applications are:  • an industrial mixing tank with an entry pipe (pumping the chemical of interest in) and an exit pipe;  •a lake with a inflow (say, a river) feeding a pollutant from upstream and an outflow (also, a river) flowing downstream;  • a tub or sink with a steady inflow (say, a faucet) and a steady outflow  uses of differential equations include:   1. In **medicine**for modelling cancer growth or the spread of disease 2. In **engineering**for describing the movement of electricity 3. In **chemistry**for modelling chemical reactions and to computer radioactive half life 4. In **economics**to find optimum investment strategies 5. In **physics** to describe the motion of waves, pendulums or chaotic systems. It is also used in physics with Newton's Second Law of Motion and the Law of Cooling. | | |
|  | Relevant additional illustration any: | https://prezi.com/sl2jjt7rccvt/real-life-application-of-differential-equation/ | | |
|  | Video Links/ Web Links if any: |  | | |
|  | Signature of Repository Administrator: |  | | |