SCHOOL OF ELECTRONICS ENGINEERING

KALINGA INSTITUTE OF INDUSTRIAL TECHNOLOGY (KIIT)

VLSI LABORATORY REPORT

(EC-3095)

Submitted By

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Section: ETC - 06 Semester: 6 TH SEM

Experiment - 7

Aim of the Experiment :-

Introduction to TINA-TI software. Simulation of NMOS & PMOS characteristics using TINA-TI softwar

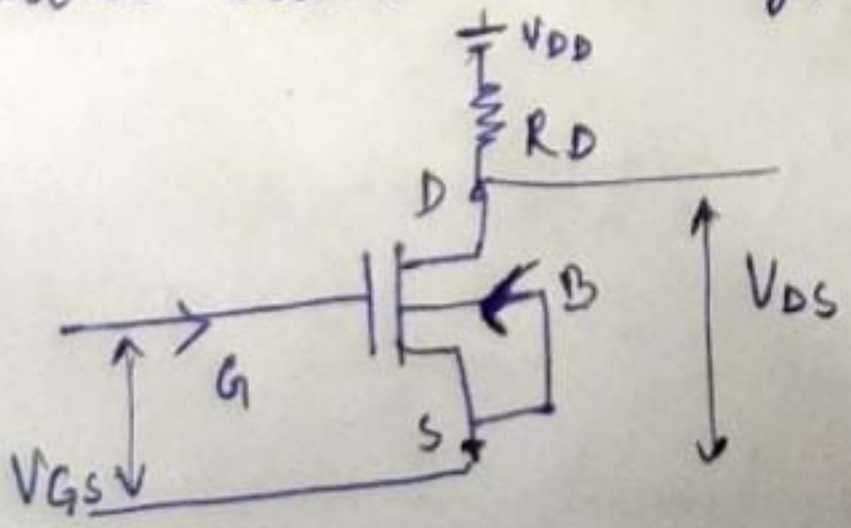
Software used :-

TINA - TI

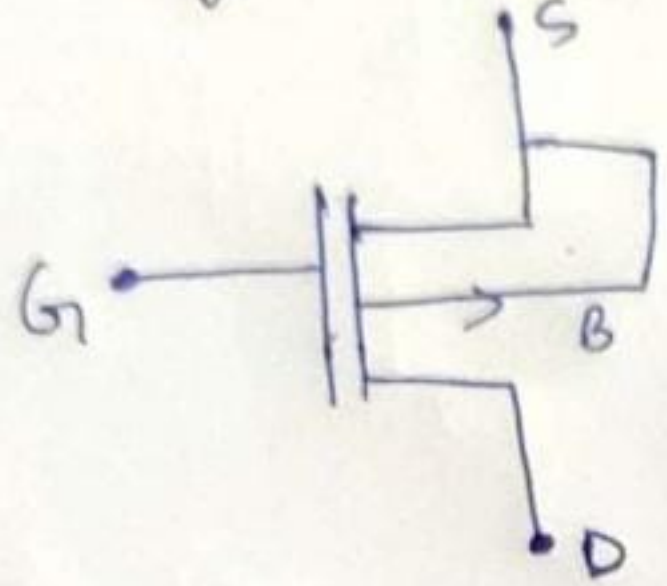
Theory :-

* TINA - Toolkit for Interactive Network Analysis in a SPICE based electronics design and training software by DesignSoft. Its features include Analog, digital & mixed circuit simulation & printed circuit board design.

* NMOS - N-Type metal oxide semiconductor logic These NMOS transistors operate by creating an inversion layer in a p-type transistor body. The inversion layer is called the n-channel can conduct electrons between n-type "source" & "drain" terminals.



PMOS → A P channel, enhancement model metal-oxide - semiconductor field effect transistor operates by creating an inversion layer in an a n-Type transistor Body.



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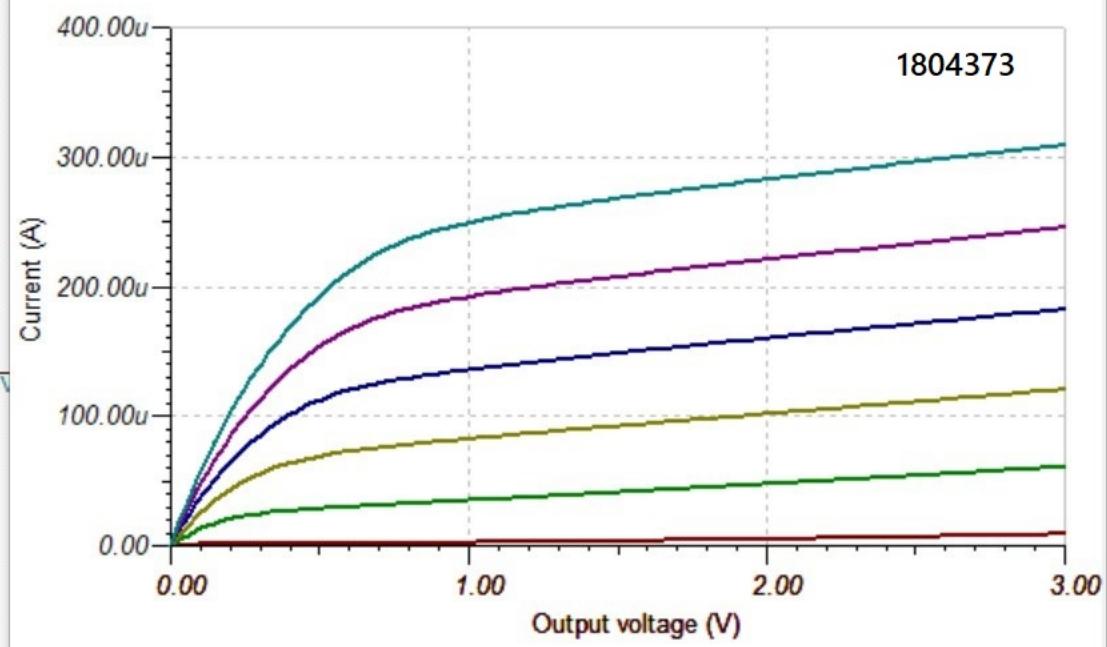

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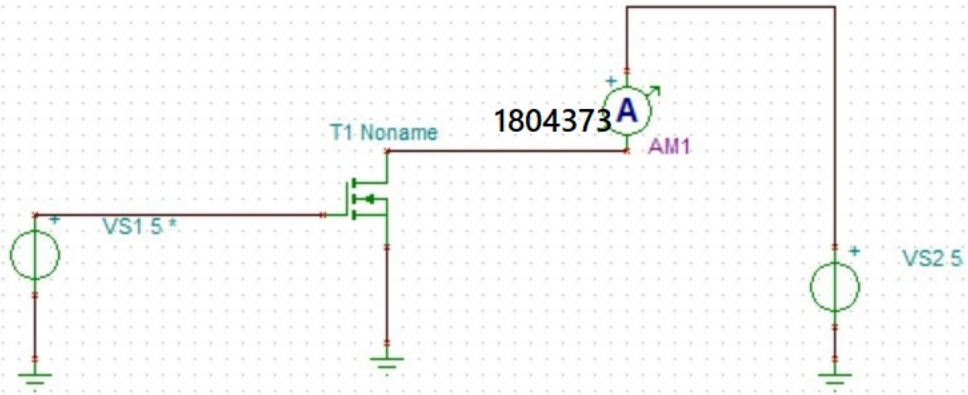

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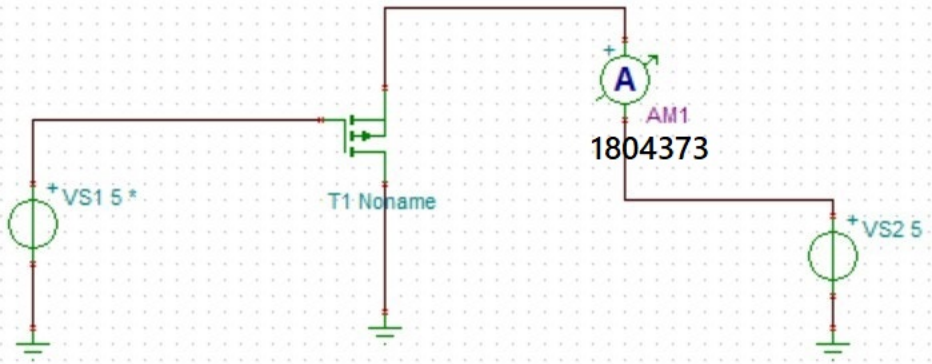

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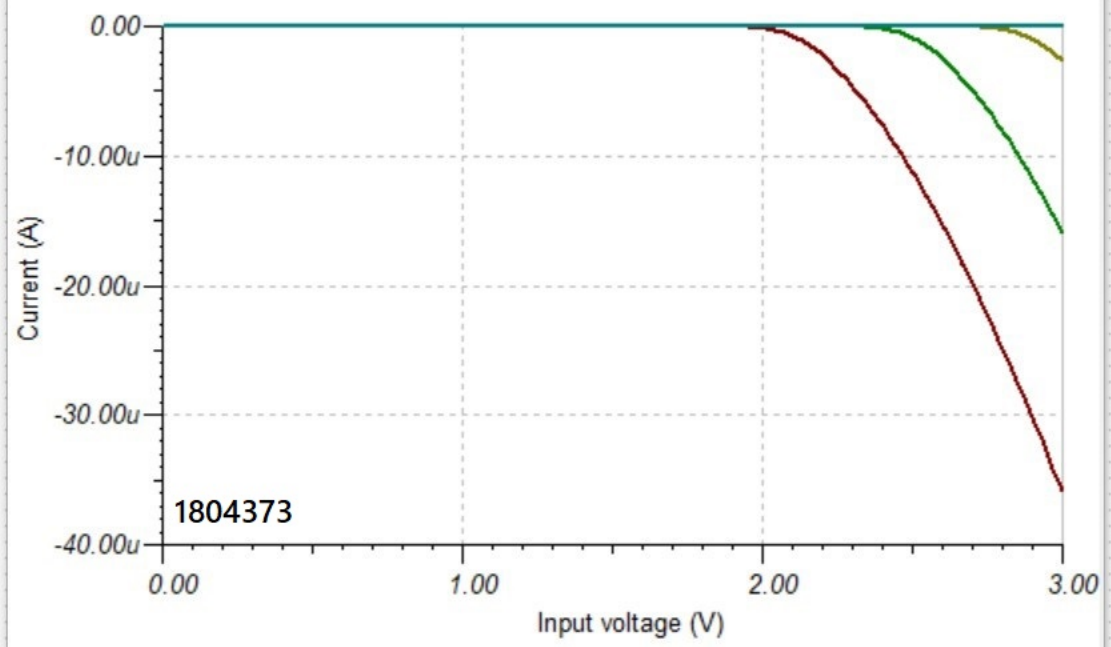

DC result1 | DC result2 | DC result3 | DC result4 | DC result5 | DC result6

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Conclusion : In this experiment we learned about TINA-TI Software and we successfully designed as well as simulated the V-I characteristics for NMOS and PMOS transistors using TINA-TI Software and obtained the graphs.