# School of Electrical and Computer Engineering

**Third Year B. Tech. (E&CE)**

**Trimester V**

**Microcontroller and Applications**

**Course Code: EC2003B**

**TITLE OF PROJECT**

**By**

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**AKNOWLEDGEMENT**

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**Thank you.**

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**Abstract:**

This project, titled "Electronic Voting Machine using C8051F340 Microcontroller," endeavors to design and implement a reliable and secure Electronic Voting Machine (EVM). The project utilizes the C8051F340 microcontroller as the core processing unit and incorporates four push buttons as the primary input interface for voters.

The EVM features a robust architecture that ensures the integrity and confidentiality of the voting process. The embedded C code on the C8051F340 microcontroller facilitates seamless interaction with the four push buttons, allowing voters to cast their votes for respective candidates. The system is designed to be user-friendly, efficient, and resistant to tampering, thereby addressing key challenges associated with traditional voting methods.

The project implementation involves a detailed circuit design, wherein the connections between the C8051F340 microcontroller and the push buttons are carefully orchestrated. The embedded C code governs the functionality of the EVM, enabling the selection of candidates and the recording of votes with precision.

Testing and validation procedures ensure the reliability and accuracy of the EVM, affirming its suitability for deployment in various electoral contexts. The outcomes of this project contribute to the advancement of electronic voting systems, providing a foundation for future enhancements in the realm of secure and accessible voting technologies.

This project not only demonstrates the practical application of the C8051F340 microcontroller in a real-world scenario but also underscores the potential for innovation in electronic voting systems.

**INTRODUCTION**

In response to the evolving landscape of electoral systems, our project, "Electronic Voting Machine using C8051F340 Microcontroller," introduces a modernized approach to voting processes. Leveraging the robust capabilities of the C8051F340 microcontroller, our Electronic Voting Machine (EVM) incorporates a user-friendly interface with four push buttons for seamless and secure candidate selection

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Traditional voting systems often grapple with inefficiencies and security concerns. Our project addresses these challenges by presenting an innovative EVM prototype designed to streamline the voting process while ensuring the integrity of each vote cast. The C8051F340 microcontroller serves as the core technology, providing a reliable foundation for the implementation of secure and efficient voting functionalities.

This brief introduction sets the stage for a detailed exploration of our EVM's design, implementation, and testing phases, demonstrating the transformative potential of integrating advanced microcontroller technology into the realm of electoral systems.

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**General instructions for report writing**

* Follow the index given to write the report.
* Tables and figures in each of the chapter should be provided immediately after the reference where they are cited. Numbering should be done to every figure and Table.
* The listing of the references should be in the format given below: Name of Authors,”title of paper”,”Title of Journal,vol ,no,page no . e.g.
* Kumar, H. Y. Shwe, K. J. Wong, and P. H. Chong, "Location-Based Routing Protocols for Wireless Sensor Networks: A Survey," Wireless Sensor Network, vol. 9, no. 01, p. 25, 2017.
* List the websites used in the report.