

# **“IMPLEMENTATION OF MAGIC MIRROR USING RASPBERRY PI3”**

## **A PROJECT REPORT**

*Submitted by*

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*in partial fulfillment for the award of the degree of*  
**Bachelor of Technology**  
*in*  
**Electronics and Communication Engineering**

Under the Supervision of  
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**Dr. A.P.J. Abdul Kalam Technical University  
Lucknow, 2018-19  
May 2019**

## **CERTIFICATE**

Certificate that work presented in this Report entitled “IMPLEMENTATION OF MAGIC MIRROR USING RASPBERRY PI 3” for the award of Bachelor of Technology from A.P.J Abdul Kalam Technical University, Lucknow, embodies results of original work, and studies are carried out by us and the contents of the project do not form the basis for the award of any other degree to the candidate or to anybody else from this or any other University/Institution.

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## **ACKNOWLEDGEMENT**

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The satisfaction that accompanies with the completion of this project would be incomplete without acknowledging the people who made it possible. Our sincere thanks to Dr. H.P. (HOD EC Dept.) and Mr. RAVI SRIVASTAVA (Project Guide) who have not only given us this great opportunity but also guided us in the right direction. We would like to thank all the faculty members for their guidance throughout 8 semesters. Last but not the least, we would like to thanks all those who have motivated and given us moral support during this project.

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## ABSTRACT

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This report presents the design and the development of an interactive, futuristic Smart Mirror with artificial intelligence for the ambient home environment as well as for commercial uses in work and public environments. The project collects real world machine data based on user requirements, and this data is displayed to the user. The entire working of the Smart Mirror system is controlled and managed by a Raspberry Pi. The Smart Mirror implemented, is a personalized digital device equipped with peripherals, namely - a microphone, speakers, an LCD monitor covered with a sheet of two-way acrylic mirror, and is powered by a Raspberry Pi. It provides basic common functionalities such as weather of the city, latest updates of news and headlines, and local time corresponding to the location. Using speech processing techniques, the user, therefore, interacts with the Smart Mirror through verbal commands. A Remote Configuration Tool (RCT) is also created to help the user with the working of the Smart Mirror when the user's voice commands result in false positives and true negatives. The Smart Mirror listens to the user's commands and performs the corresponding functions.

## PREFACE

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The construction of this project is include in academic curriculum of Dr. A. P. J. Abdul Kalam Technical University, Lucknow for accessing the capability of students to utilize their practical knowledge in the practical knowledge in the practical arena.

This report presents the design and the development of an interactive, futuristic Smart Mirror with artificial intelligence for the ambient home environment as well as for commercial uses in work and public environments. The project collects real world machine data based on user requirements, and this data is displayed to the user. The entire working of the Smart Mirror system is controlled and managed by a Raspberry Pi. The Smart Mirror implemented, is a personalized digital device equipped with peripherals, namely - a microphone, speakers, an LCD monitor covered with a sheet of two-way acrylic mirror, and is powered by a Raspberry Pi. It provides basic common functionalities such as weather of the city, latest updates of news and headlines, and local time corresponding to the location. Using speech processing techniques, the user, therefore, interacts with the Smart Mirror through verbal commands. A Remote Configuration Tool (RCT) is also created to help the user with the working of the Smart Mirror when the user's voice commands result in false positives and true negatives. The Smart Mirror listens to the user's commands and performs the corresponding functions.

This is no doubt that in spite of our silence efforts; there might be few anomalies in this project. Yours suggestions and advice are cordially welcomed.

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