

A.T.O.M.- Artificial Intelligent Omnipresent Machine

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Abstract : This paper primarily focuses on developing an affordable personal assistant and the implementation of it in the field of Artificial Intelligence (AI) to create a virtual assistant/friend. The problem in existing home automation techniques is that it requires the usage of exact command words present in the database to execute the corresponding task. Our proposed work is ATOM a.k.a 'Artificial intelligence Talking Omnipresent Machine'. Our inspiration came from an unlikely source- the movie 'Iron Man' in which a character called J.A.R.V.I.S has omnipresence, and device controlling capability. This device can control household devices in real time and send the live information to the user. This device does not require the user to utter the exact commands specified in the database as it can capture the keywords from the uttered commands, correlates the obtained keywords and perform the specified task. This ability to compare and correlate the keywords gives the user the liberty to give commands which are not necessarily the exact words provided in the database. The proposed work has a higher flexibility (due to its keyword extracting ability from the user input) comparing to the existing work Intelligent Home automation System (IHAS), is more accurate, and is much more affordable as it makes use of WI-FI module and raspberry pi 2 instead of ZigBee and a computer respectively.

Keywords : home automation, speech recognition, voice control, personal assistant, artificial intelligence

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