

## International Journal of Computer Science and Mobile Computing

A Monthly Journal of Computer Science and Information Technology

ISSN 2320-088X

*IJCSMC, Vol. 3, Issue. 3, March 2014, pg.849 – 855*



### **RESEARCH ARTICLE**

# **Design of Power Efficient Low-Cost Embedded Control Systems for Domestic Induction Heating Appliances**

**<sup>1</sup>S.Shanthi, <sup>2</sup>S.Muthukrishnan, <sup>3</sup>G.Mohanambal**

PG Scholar [AE], Dept. of ECE, Sri Eshwar College of Engineering, Coimbatore, Tamilnadu, India<sup>1</sup>

Head of the ECE department, Sri Eshwar college of Engineering, Coimbatore, Tamilnadu, India<sup>2</sup>

PG Scholar [AE], Dept. of ECE, Sri Eshwar College of Engineering, Coimbatore, Tamilnadu, India<sup>3</sup>

shanthiaug2@gmail.com, hodece04@gmail.com, mohanasece@gmail.com

**ABSTRACT:** *The demand for better quality, safe and power efficient products is most preferred in recent days. Safe, efficient and quick induction heating appliances attract more customers. This work describes the model of induction heating process, design of inverter circuit and the execution results. In the design of heating coil, power converter unit and closed feedback system are very important design factors because they decide the overall operating performance of induction heater including efficiency and performance. The circuit is simulated using the proteus software and the performance is analysed using the experimental results.*

**Keywords:** *Analog to Digital Converter, Digital Control, Induction Heating, Resonant Power Conversion*

Full Text: <http://www.ijcsmc.com/docs/papers/March2014/V3I3201499a1.pdf>