



دانشگاه زنجان  
دانشکده فنی و مهندسی  
گروه برق

# پایان نامه کارشناسی



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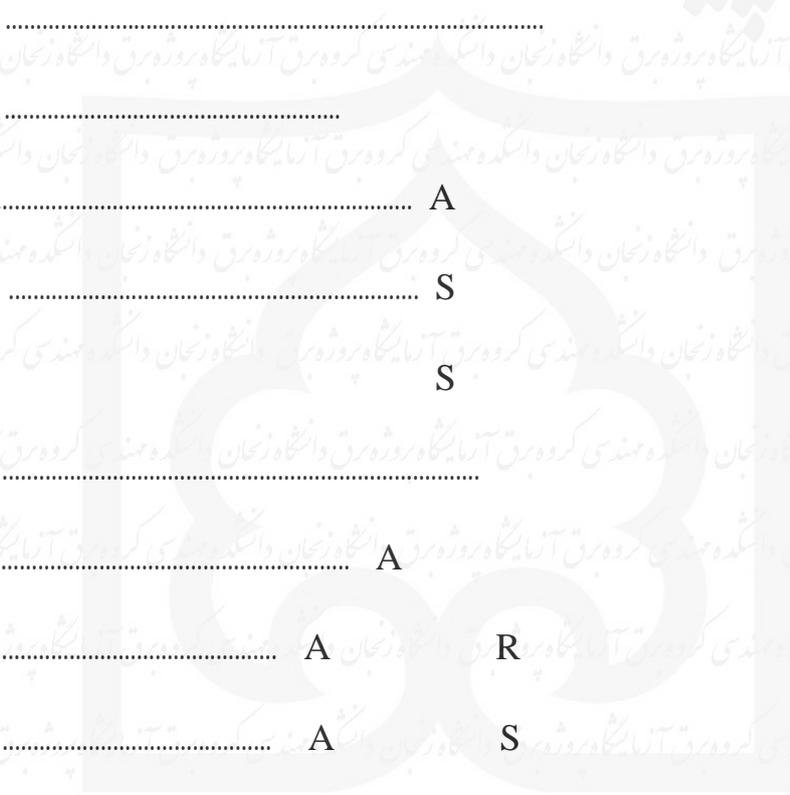




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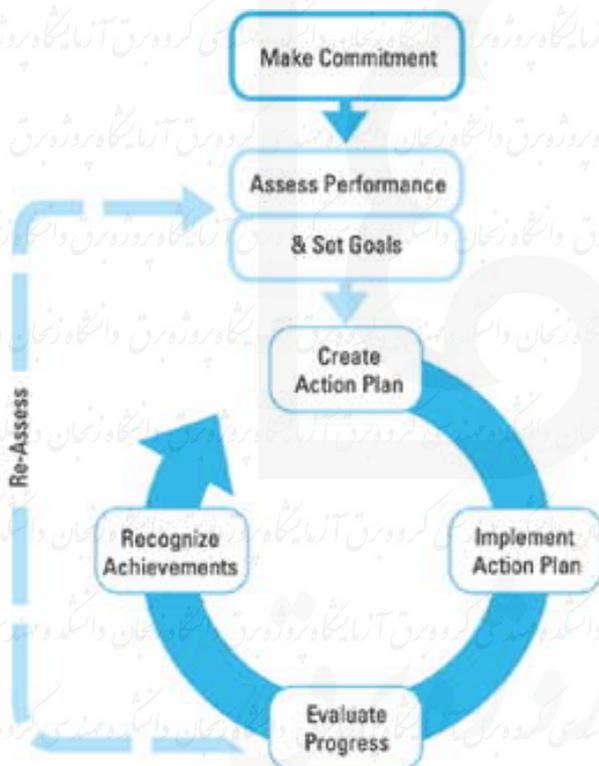






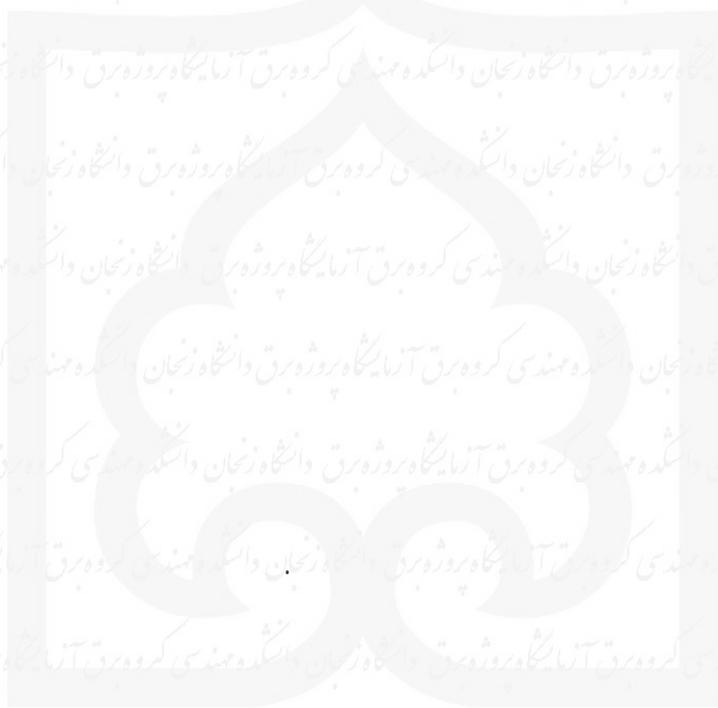


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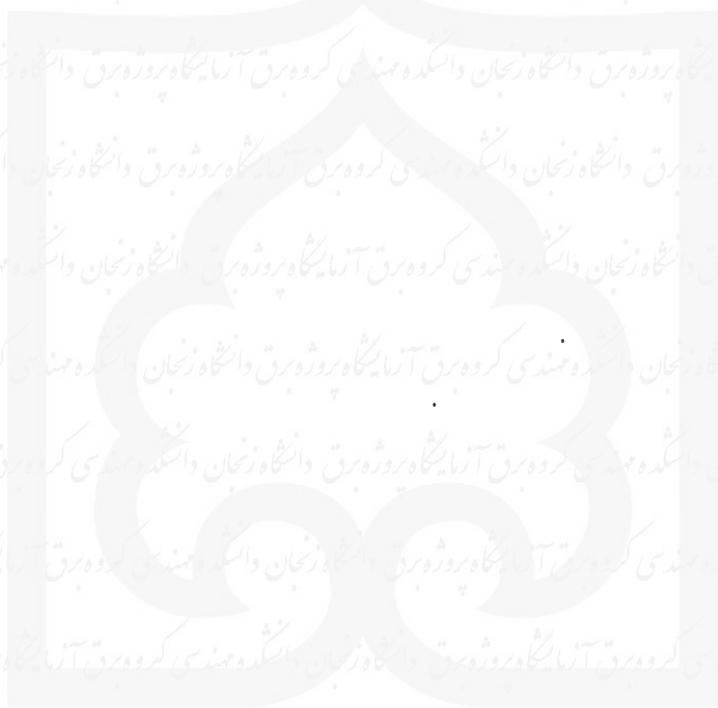


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## Abstract

Electrical energy audit studies the electrical energy consumption in the process to increase the efficiency with measure and then compare the values with standard values.

The cost of energy effects on product cost and targeted subsidy plan that results the increasing of the cost of energy, are the reasons for energy audit.

In energy audit, at the first, the amount of energy consumption and efficiency are measured, in the second step these values are compared with standard values, then energy audit offers the short time, middle time and long time proffers to increase the efficiency.

In this project we try to perform an energy audit in an industrial factory of zinc production, therefore in this project we define the instruments and methods of energy audit then we perform the energy audit in that industrial factory with these instrument.

[ ] [www.energystar.gov](http://www.energystar.gov), "Guidelines For Energy Management"

[ ] " ( )

[ ] IEEE Std ۱۱۲<sup>TM</sup> "IEEE Standard Test Procedure for Polyphase Induction Motors and Generators" (Revision of IEEE Std

[ ] "Determining Electric Motor Load and Efficiency" U.S. Department of Energy

[ ] IEC - - "Testing and measurement techniques – Power quality measurement methods" Edition

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[ ] IEEE Std - "IEEE Recommended Practice for Monitoring Electric Power Quality" June

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[ ] Kalbasi, Hedayati, Ahmadpour, Mansour, Abbas, Amin, "Optimization of Energy and Production Process Modeling of Zinc", World Applied Sciences Journal ( ):

[ ] <http://www.tariff.tavanir.org.ir>

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