

## CERTIFICATE



I certify that the thesis entitled **Pb (II), Co (II), Ni (II) AND Cu (II), COMPLEXES OF AZO DYES: SYNTHESIS, CHARACTERIZATION, ULTRASONIC, SEM/EDS AND ELECTRO CHEMICAL BEHAVIOUR** submitted to Periyar University in partial fulfilment for the award of degree of **Doctor of Philosophy in Chemistry** is a bonafide research work carried out by **V.Dharmalingam**, under my guidance and supervision and it has not formed the basis for the award of any Degree, Diploma, Associateship, Fellowship or any other similar titles in this or any other University or Institution of higher learning.

Place: Salem

Date:26.03.2012

*Signature of the Supervisor.*

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