

## **CERTIFICATE**

This is to certify that the thesis, entitled “**Sorption Dynamics of Modified Nut Shells on Ni(II), Co(II), Cr(VI) ions from Aqueous Solutions and Industrial Effluents - Equilibrium, Isothermal and Kinetic Studies**”, submitted to the Bharathiar University, in partial fulfilment of the requirement for the award of the degree of **Doctor of Philosophy in Chemistry** is a record of original research work done by **Mrs. G.Gohulavani** during the period 2008-2013 of her research in the Department of Chemistry at PSGR Krishnammal College for Women, Coimbatore under my supervision and guidance and the thesis has not formed the basis for the award of any Degree / Diploma / Associateship / Fellowship or other similar title of any candidate in any University.

**Countersigned**

**Head of the Department**

**Signature of the Guide**

**Principal**

## **DECLARATION**

I, **Mrs.Gohulavani.G** hereby declare that the thesis, entitled “**Sorption Dynamics of Modified Nut shells on Ni(II), Co(II), Cr(VI) ions from Aqueous Solutions and Industrial effluents - Equilibrium, Isothermal and Kinetic Studies**”, submitted to the Bharathiar University, in partial fulfilment of the requirements for the award of the Degree of **Doctor of Philosophy in Chemistry** is a record of original and independent research work done by me during 2008-2013 under the supervision and guidance of **Dr(Mrs) N.Muthulakshmi Andral**, Department of Chemistry, PSGR Krishnammal College for Women, Coimbatore and it has not formed the basis for the award of any Degree / Diploma / Associateship / Fellowship or other similar title of any candidate in any University.

**Signature of the Candidate**

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*(G.Gohulavani)*