**AUTOMATIC SPECTRUM SHARING TECHNIQUE USING COGNITIVE RADIO NETWORK FOR EFFICIENT MOBILE COMMUNICATION**

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| **A PROJECT REPORT** |  |
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***in partial fulfillment for the award of the degree***

***of***

**BACHELOR OF ENGINEERING**

**IN**

**ELECTRONICS AND COMMUNICATION ENGINEERING**

**N.S.N. COLLEGE OF ENGINEERING AND TECHNOLOGY, KARUR**

**ANNA UNIVERSITY: CHENNAI 600 025**

**APRIL 2018**

**ANNA UNIVERSITY: CHENNAI 600 025**

**BONAFIDE CERTIFICATE**

Certified that this project report **“AUTOMATIC SPECTRUM SHARING TECHNIQUE USING COGNITIVE RADIO NETWORK FOR EFFICIENT MOBILE COMMUNICATION”** is the bonafide work of **“PRIYA N, SANGEETHA K, SANGEETHA P”** who carried out the project work under my supervision.

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Submitted for the project viva-voce examination held on ………………..

**INTERNAL EXAMINER EXTERNAL EXAMINER**

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**BHARAT SANCHAR NIGAM LIMITED**

Bharat Sanchar Nigam Limitedis an Indian [state-owned](https://en.wikipedia.org/wiki/State-owned) [telecommunications](https://en.wikipedia.org/wiki/Telecommunications) company headquartered in [New Delhi](https://en.wikipedia.org/wiki/New_Delhi). It was incorporated on 15 September 2000 and assumed the business of providing telecom services and network management from the erstwhile Central Government Departments of Telecom Services and Telecom Operations as of 1 October 2000 on a going-concern basis.

It is the largest provider of [fixed telephony](https://en.wikipedia.org/wiki/Telephony) and [broadband](https://en.wikipedia.org/wiki/Broadband_Internet_access) services with more than 60% market share, and is the [fifth largest](https://en.wikipedia.org/wiki/Mobile_network_operators_of_India) [mobile telephony](https://en.wikipedia.org/wiki/Mobile_telephony) provider in India. However, in recent years, the company's revenues and market share have plummeted resulting in heavy losses as a result of intense competition in the [privatizing](https://en.wikipedia.org/wiki/Privatizing) Indian telecommunications sector. BSNL is India's oldest communication service provider and had a customer base of 93.29 million as of June 2015. It has footprints throughout India, except for [Mumbai](https://en.wikipedia.org/wiki/Mumbai) and [New Delhi](https://en.wikipedia.org/wiki/New_Delhi), where telecommunications are managed by [Mahanagar Telephone Nigam](https://en.wikipedia.org/wiki/Mahanagar_Telephone_Nigam" \o "Mahanagar Telephone Nigam) .

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