**Computer Science Paper IX**
**Practical Course Based on BS62205**
**[Discipline Specific Course]**

| Semester: VI | Credits: 2 | Subject Code: BSP62209 | Lectures: 36 |
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**Course Outcomes:**

**At the end of this course, the learner will be able to:**
- Use multithreading to write multi core applications
- Learn database Programming using Java
- Create dynamic web pages using Servlets and JSP.
- Use basics of framework to develop secure web applications

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| **Assignment 1: Collections** | 6 |
| **Assignment 2: Multithreading** | 6 |
| **Assignment 3: Database Programming** | 6 |
| **Assignment 4: Servlets** | 6 |
| **Assignment 5: JSP** | 6 |
| **Assignment 6: Spring Framework** | 6 |

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**Recommended Reference Books:**

- Cay S. Horstmann, Gary Cornell, *Core Java Volume-II-Advanced Features*, Eighth Edition, Prentice Hall, Sun Microsystems Press
- E. Balagurusamy, *Programming with Java , A primer* ,Forth edition
- Henry H. Liu, *Spring 4 for Developing Enterprise Applications: An End-to-End Approach,*
- Herbert Schildt, *Complete reference Java (5th edition)*
- J Sharma and Ashish Sarin, *Getting started with Spring Framework: covers Spring 5*
- Steven Horlzner , *Java 2 programming black book*
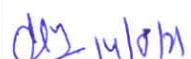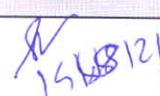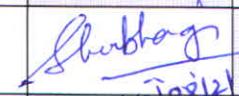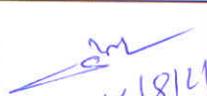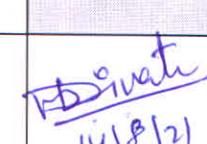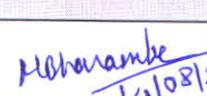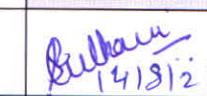
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| Chairperson | Ms Ashwini Kulkarni | |

| Board of Studies | Name | Signature(in white cell) | |
|---|---|---|---|
| Chairperson (HoD) | Ms Ashwini Kulkarni | *signature* 14/8/21 | |
| Faculty | Ms. Smita Borkar | | *signature* 15/08/21 |
| Faculty | Ms. Shubhangi Jagtap | *signature* 14/08/21 | |
| Subject Expert (Outside SPPU) | Prof. Mr. Aniket Nagne | | *signature* 15/8/21 |
| Subject Expert (Outside SPPU) | Dr. Manisha Divate | *Divate* 14/8/21 | |
| VC Nominee | Dr. Manisha Bharambe | | *Mbharambe* 14/08/21 |
| Industry Expert | Ms Snehal Biyala | *signature* 14/8/21 | |
| Alumni | Ms. Mamta Choudhary | | *signature* 14/8/21 |

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| Chairperson | Ms Ashwini Kulkarni | *signature* |