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|  | **DEPARTMENT OF COMPUTER ENGINEERING** |

**Assignment No. 11**

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| Semester | B.E. Semester VII – Computer Engineering |
| Subject | Natural Language Processing |
| Subject Professor In-charge | Prof. Suja Jayachandran |
| Academic Year | 2024-25 |

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| Student Name | Deep Salunkhe |
| Roll Number | 21102A0014 |
| Topic | Paper Review |
| Paper | XL-WSD: An Extra-Large and Cross-Lingual Evaluation Framework for Word Sense Disambiguation |

**Review:**

The paper titled "XL-WSD: An Extra-Large and Cross-Lingual Evaluation Framework for Word Sense Disambiguation" presents a new benchmark for evaluating Word Sense Disambiguation (WSD) models across 18 languages from six different language families. It aims to address the limitations in multilingual WSD evaluation by offering a unified multilingual sense inventory and more than 70,000 new gold-standard annotations. The framework supports cross-lingual testing and includes language-specific silver training data.

The study evaluates both neural models, such as Transformer-based architectures, and knowledge-based approaches. Results indicate that large multilingual models show promise for zero-shot transfer, particularly in low-resource languages, although challenges remain for representing less frequent word meanings. The paper extends previous English-focused benchmarks by including new data for English as well as additional coarse-grained evaluation sets.

The framework, along with the evaluation suite and code, is made available to the research community to foster further development in multilingual WSD.