

Course Outline

1. **Metrics of MT Quality.**
2. Approaches to MT. SMT, PBMT, NMT, NP-hardness.
3. NMT (Seq2seq, Attention. Transformer). Neural Monkey.
4. Parallel texts. Sentence and word alignment. hunalign, GIZA++.
5. PBMT: Phrase Extraction, Decoding, MERT. Moses.
6. Morphology in MT. Factors or segmenting, data or linguistics.
7. Syntax in SMT (constituency, dependency, deep).
8. Syntax in NMT (soft constraints/multitask, network structure).
9. Towards Understanding: Word and Sentence Representations.
10. Advanced: Multi-Lingual MT. Multi-Task Training. Chef's Tricks.
11. Project presentations.