

# Contents

## Introduction — V

Magdalena Borowczyk

- 1 Research in Persian Natural Language Processing – History and State of the Art — 1**

Katarzyna Marszałek-Kowalewska

- 2 Challenges of Persian NLP: The Importance of Text Normalization — 25**

Jalal Maleki

- 3 Dabire: A Phonemic Orthography for Persian — 47**

Mahsa Vafaie and Jon Dehdari

- 4 Speech Recognition for Persian — 85**

Masood Ghayoomi

- 5 Syntactic Parsing of Persian: From Theory to Practice — 105**

Hanieh Poostchi and Massimo Piccardi

- 6 Persian Named Entity Recognition with Structural Prediction Methods — 149**

Katarzyna Marszałek-Kowalewska

- 7 Multiword Expressions in Persian — 185**

Adel Rahimi

- 8 Machine Translation: From Paper Tapes to Neural Networks — 219**

Saeedeh Momtazi

- 9 Distributional Word Representation for Persian — 235**

## Index — 255