

Dr Chandrakant Bothe

PhD, University of Hamburg · Co-founder & Chief AI Tech Officer, Foviatech GmbH

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EXPERIENCE

Foviatech GmbH <i>Co-founder & Chief AI Technology Officer</i>	March 2019 - Present <i>Hamburg, Germany</i>
University of Hamburg <i>Research Associate</i>	March 2016 - Feb 2019 <i>Hamburg, Germany</i>
SoftBank Robotics Europe <i>PhD Internship</i>	July-August 2018 <i>Paris, France</i>
IRCCyN, Ecole Centrale de Nantes <i>Graduate Researcher/Master Internship</i>	Feb. 2015 - Aug. 2015 <i>Nantes, France</i>
Teaching Experience <i>Lecturer in Electronics at Engineering Colleges</i>	2011 - 2013 <i>Maharashtra, India</i>

EDUCATION

University of Hamburg, Hamburg, Germany PhD in Computer Science AI, Natural Language Processing, Robotics and Computer Vision Thesis: Conversational Language Learning for Human-Robot Interaction Supervisor: Prof. Stefan Wermter	<i>2016-2020</i>
Ecole Centrale de Nantes, Nantes, France Master in Science Control Engineering, Robotics and Applied Informatics (Master ARIA) Thesis: Human-humanoid interaction by verbal dialogues Supervisors: Prof. Yannick Aoustin and Prof. Jerome Lehuen	<i>2013-2015</i>
Amravati University, Amravati, India Bachelor in Engineering Electronics and Tele-communication at Anuradha Engg. College, Chikhli	<i>2007-2011</i>

SCHOLARSHIP/FELLOWSHIP GRANTS

European Training Network: SECURE Project (secure-robots.eu) Safety Enables Cooperation in Uncertain Robotic Environments (SECURE) Marie Skłodowska-Curie Action PhD Fellowship: EU Project Grant No. 642667	<i>2016-2019</i>
India4EU II Project (india4eu.eu) Master Automatique, Robotique et Informatique Applique (Master ARIA/EMARO) Erasmus Mundus Action II: EU Project	<i>2013-2015</i>

PUBLICATIONS

1. **Bothe, C.**, Weber, C., Magg, S., and Wermter, S. (2020). EDA: Enriching Emotional Dialogue Acts using an Ensemble of Neural Annotators Proceedings of the Language Resources and Evaluation Conference (LREC 2020).
2. **Bothe, C.**, and Wermter, S. (2019). Ensemble BiRNNs for Contextual Emotion Detection in Dialogues Proceedings of the 13th International Workshop on Semantic Evaluation at NAACL-HLT 2019, pages 261–265.
3. **Bothe, C.**, Garcia, F., Maya, A. C., Pandey, A. K., and Wermter, S. (2018). Towards Dialogue-based Navigation with Multivariate Adaptation driven by Intention and Politeness for Social Robots. The International Conference on Social Robotics (ICSR 2018), pages 230–240. Contribution of the PhD Internship at Softbank Robotics Europe, Paris.
4. Zhou, X., Weber, C., **Bothe, C.**, Wermter, S. (2018). Hybrid Planning Strategy through Learning from Vision for Target-directed Navigation. The International Conference on Artificial Neural Networks, pages 304–311 (ICANN 2018).
5. **Bothe, C.**, Weber, C., Magg, S., and Wermter, S. (2018). Discourse-Wizard: Discovering Deep Discourse Structure in your Conversation with RNNs. arXiv:1806.11420 [cs.CL]
6. **Bothe, C.**, Weber, C., Magg, S., and Wermter, S. (2018). Conversational Analysis using Utterance-level Attention-based Bidirectional Recurrent Neural Networks. INTERSPEECH 2018.
7. **Bothe, C.**, Magg, S., Weber, C., and Wermter, S. (2018). Context-based Approach for Dialogue Act Recognition using Simple Recurrent Neural Networks. The Language Resources and Evaluation Conference (LREC 2018).
8. **Bothe, C.**, Magg, S., Weber, C., and Wermter, S. (2017). Dialogue-based Neural Learning to Estimate Sentiment of Next-upcoming Utterance. The 26th International Conference on Artificial Neural Networks (ICANN 2017).
9. Lakomkin, E., **Bothe, C.**, and Wermter, S. (2017). GradAscent at EmoInt-2017: Character- and Word-Level Recurrent Neural Network Models for Tweet Emotion Intensity Detection. The WASSA at Empirical Methods in Natural Language Processing Conference (EMNLP 2017).
10. **Bothe, C.**, Lehuen, J., and Aoustin, Y. (2015). Human-Humanoid Interaction by Verbal Dialogues: Nao humanoid robot with dialogue toolkit. [abstract] Journées Nationales de la Recherche Humanoïde (JNRH 2015). Contribution from Master Internship at IRCCyN, Nantes.

EXTRA CURRICULAR ACTIVITIES

Participation and Visits:

Apr., 2021: Speaker at the webinar Introduction to AI, organized by Anuradha Engineering College, Chikhli on 16th April 2021, held online.

Apr., 2021: Panelist at the International Alumni Meet - Anubandh 2021, organized by Anuradha Engineering College, Chikhli on 4th April 2021, held online.

Jan., 2021: Panelist at French Course Webinar, organized jointly by Jargan Lakecity University (Dr. Rolli Khare) and Online Language Institute (Pankhuri Nangia) on 18th Jan 2021, held online.

Nov., 2020: Successfully defended my PhD thesis titled “Conversational Language Learning for Human-Robot Interaction” on 18th Nov 2020 at the University of Hamburg, Hamburg, Germany.

May., 2020: Our article EDA: Enriching Emotional Dialogue Acts using an Ensemble of Neural Annotators to be published in the Proceedings of LREC 2020, Marseille, France.

Dec., 2019: Published dataset on emotional dialogue acts with publication contribution EDA: Enriching Emotional Dialogue Acts using an Ensemble of Neural Annotators to be published in the Proceedings of the Language Resources and Evaluation Conference (LREC 2020), Marseille, France.

Aug., 2019: Participated and published the partial PhD work titled "Language Learning for Safety during Human-Robot Interaction" at the ICDL-EPIROB 2019 Workshop on Personal Robotics and SECURE Human-Robot Collaboration in Oslo, Norway.

Jun., 2019: Participated in a challenge EmoContext: Contextual Emotion Detection in Text (Task 3) in SemEval-2019 (International Workshop on Semantic Evaluation) at NAACL-HLT 2019, Minneapolis, USA.

Mar., 2019: Founded and joined Foviatech GmbH as Chief AI Technology Officer, Hamburg, Germany.

Nov., 2018: Presented the published work at the Tenth International Conference on Social Robotics - ICSR 2018, Qingdao, China.

Sept., 2018: Presented the published work at Interspeech 2018, Hyderabad, India.

Oct., 2018: Presented the published work at the 27th International Conference on Artificial Neural Networks - ICANN 2018, Rhodes, Greece.

Oct., 2018: Attended the IEEE/RSJ International Conference on Intelligent Robots and Systems - IROS 2018, Madrid, Spain.

Sept., 2018: Organizer and participant for the International PhD Conference on Safe and Social Robotics (SSR 2018), Madrid, Spain.

Jul. - Aug., 2018: PhD Internship as a part of the SECURE secondment project at the AI lab of Innovation Department, under the supervision of Dr Amit Kumar Pandey, Head Principal Scientist (now President and Chief Technology Officer at Hanson Robotics) at SoftBank Robotics, Paris, France.

May, 2018: Presented the published work at the Eleventh International Conference on Language Resources and Evaluation (LREC 2018) in Miyazaki, Japan.

Mar., 2018: SECURE Workshop on Transferable Skills at IIT, Genoa, Italy.

Sept., 2017: Presented the published work at the 26th International Conference on Artificial Neural Networks (ICANN 2017) in Alghero, Sardinia, Italy.

Sept., 2017: Participated in a challenge on Emotion Intensity Detection in WASSA at the Conference on Empirical Methods in Natural Language Processing (EMNLP-2017) in Copenhagen, Denmark.

May, 2017: Midterm Review Meeting of SECURE Project in Hamburg, Germany.

Feb., 2017: iCub Winter School 2017 (VWV17) in Santa Margherita, Genoa, Italy.

Dec., 2016: SECURE Robot Workshop at IPA, Fraunhofer in Stuttgart, Germany.

Sept., 2016: SECURE Workshop at EPIROB ICDL Conference in Cergy Pontoise, Paris, France.

Mar., 2016: SECURE Workshop - Kick Start Meetup in Hertfordshire, England, UK.

Aug., 2015: Successfully defended my master thesis titled "Human-Humanoid Interaction by Verbal Dialogues: Nao humanoid robot with dialogue toolkit" on 26th August 2015 at the Ecole Centrale de Nantes, Nantes, France.

Jun., 2015: Presented the published abstract Human-Humanoid Interaction by Verbal Dialogues of master thesis in the conference Journées Nationales de la Robotique Humanoïde (JNRH 2015) held at the Ecole Centrale de Nantes with IRCCyN Lab., Nantes, France.

Demonstration Projects:

Emotional Dialogue Acts (EDA) Corpora: Enriching Existing Conversational Emotion Datasets with Dialogue Acts using Neural Annotators.

Dialogue Act Recognition Demonstration server API which has 3 with context models and 2 without context models. The API information is available at:

<https://github.com/bothe/EDAs>

Discourse-Wizard: Discovering Deep Discourse Structure in your Conversation with RNNs.

Dialogue Act Recognition Demonstration with and without context model, shows the importance of context in a conversation. The live web-demo is available at:

<https://secure-robots.eu/fellows/bothe/discourse-wizard-demo/>

<https://chan.bothe.in/discourse-wizard/>

Secondment Project: Dialogue-based Navigation with Multivariate Adaptation driven by Intention and Politeness for Social Robots.

Video demo of the secondment work accomplished in collaboration with SoftBank Robotics Europe in Paris, France during July-August 2018. [initial release: 29 August 2018]

<https://secure-robots.eu/fellows/bothe/secondment-project/>

Reviewer for:

Conferences

International Conference on Human-Robot Interaction (HRI)

International Conference on Language Resources and Evaluation (LREC)

International Conference on Artificial Neural Networks (ICANN)

International Conference on Social Robotics (ICSR)

International PhD Conference on Safe and Social Robotics (SSR)

International Workshop on Semantic Evaluation (SemEval)

Journals

Journal of Artificial Intelligence Research (by AAAI)

Knowledge-Based Systems (by Elsevier)

Applied Sciences (by MDPI)

International Journal of Computational Intelligence Systems (by Atlantis Press)