

*Review of a Doctoral Thesis at FIT BUT*

**Doctoral thesis** (hereinafter referred to as "thesis"), title of the thesis:

**Name of the doctoral student** (hereinafter referred to as "student"), name and surname:

Federico Nicolas Landini

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**Name and institution of the reviewer** (full name of the reviewer, full name and country of the institution):

Prof. Sriram Ganapathy

Electrical Engineering, Indian Institute of Science, Bangalore, India, 560012.

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Please state your opinion on the following aspects of (I) the student's thesis and (II) the student's overall achievements, and (III) state your conclusion (a minimum of approx. 300 characters for each item below is recommended):

I. Thesis

Appropriateness and relevance

Is the area addressed by the thesis appropriate to the particular scientific discipline of the thesis and does the thesis address relevant problems within the chosen area?

**Yes, the thesis addresses an important topic in speech processing of multi-speaker conversational data, essentially of attributing speech segments to speaker clusters. While the impact of solving this problem is significant for the next generation of speech technology, the problem is challenging and warrants a thorough study, as conducted by the candidate in this work.**

A summary of the contributions of the thesis

From your point of view, please summarize what the goal of the thesis is, what the main contributions of the thesis are, and whether the thesis has achieved the chosen goal. Please indicate also specific contributions of the student.

**The summary of the contributions in the thesis -**

- 1. Comprehensive coverage of modular and end-to-end speaker diarization systems.**
- 2. Contributions to improve modular and end-to-end approaches.**
- 3. Benchmarking and evaluating prior works with the proposal.**
- 4. Adding vital resources for researchers in the field to follow.**

**On all these accounts, I find the the thesis to have achieved the stated goals in an excellent fashion.**

Novelty and significance:

Please assess the level of novelty of the results and their significance for the given scientific area, for its further development, and if applicable for possible applications in practice.

**The candidate has made novel and vital contributions to the field of speaker diarization and recognition. A clear indication of this, is the adoption several pieces of the effort from the candidate by other researchers in the field and in the design of winning systems in diarization challenges using the techniques mentioned in the thesis.**

Evaluation of the formal aspects of the thesis:

Please evaluate formal qualities of thesis and its language level.

**The document is well-written with almost no typos or writing issues. The overall topic coverage is vast and comprehensive. It goes into historical as well as recent literature with excellent balance. Further, the pointers to diarization challenges, data and model resources/recipes and SoTA results on several tasks is a vital resource for benchmarking diarization systems for the community.**

Quality of publications

Has the core of the thesis been published at an appropriate level? Please judge the quantity and quality of the publications. When judging the quality, please take into account internationally recognized standards (WoS/Scopus quartiles, CORE ranks, specific knowledge of flagship publication channels of a given community, etc.) in a way appropriate for the given area of the thesis.

**The candidate has published in flagship conferences and journals throughout his PhD journey. I find the publication record to be exemplary.**

II. Student's overall achievements

Overall R&D activities evaluation:

Does the student's thesis, the results included into it, and possible other scientific achievements listed in the list of scientific activities indicate that he/she is a person with scientific erudition and creative abilities?

**Yes. The candidate has shown outstanding theoretical and experimental skills throughout the thesis. I find the balance between theory and practice to be remarkable, exhibiting a piece of work that attempts to create scientific and technological impact in the field.**

Assessment of other characteristics (optional):

More characteristics of the student may be added here (e.g., awards, grant participation, international collaboration, etc.).

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### III. Conclusion

The conclusion should contain an explicit statement saying whether, in your opinion, the thesis and the student's achievements until now meet the generally accepted requirements for the award of an academic degree (in accordance with Section 47 of Act No. 111/1998 Coll., on higher education institution).\*

In summary, I approve the candidate's doctoral thesis as making vital contributions to the field of speaker diarization. I am glad to positively recommend the work for graduation and to have met the standards expected of this dissertation.

\* Short overview of both the Act and corresponding internal BUT regulations is enclosed.

Place (e.g. Brno) DD.MM.YYYY

**Bangalore**

**13.05.2024**

Signature of the reviewer: