

I.E. Livieris, E. Pintelas and P. Pintelas. [Gender recognition by voice using an improved self-labeled algorithm](#) . *Machine Learning and Knowledge Extraction* . 2019



Abstract - Speech recognition has various applications such as human to machine interaction, sorting of telephone calls by gender categorization, video categorization with tagging and so on. Nowadays, machine learning is a popular trend which has been widely utilized on various fields and applications, exploiting the recent development in digital technologies and the advantage of storage capabilities from electronic media. Recently, research focuses on the combination of ensemble learning techniques with the semi-supervised learning framework aiming to build more accurate classifiers. In this paper, we focus on gender recognition by voice utilizing a new ensemble semi-supervised self-labeled algorithm. Our preliminary numerical experiments demonstrate the classification efficiency of the proposed algorithm in terms of accuracy, leading to the development of stable and robust predictive models.