Abstract

Identification of authorship of writings of unknown authorship is a special type of problems in the field of Stylometry. In this paper, the classification of articles of ambiguous authorship to the articles written by contemporary Tamil scholars of the same period, namely Mahakavi Bharathiar (MB), Subramaniya Iyer (SI), and T. V. Kalyanasundaram (TVK) is discussed. During the pre-independence period, these three popular scholars had written number of articles on India’s Freedom Movement in the magazine called, India. Initially, all the three writers contributed their articles by attributing their names. Later, all the three patriots wrote articles on the same theme for anonymous publications without mentioning their names due to the oppressive attitude of the then British regime. Over the last two decades, the application of Artificial Neural Network models has increased considerably in areas of pattern classification and recognition problems in the field of Stylometry. In the present research, an attempt is made to apply the Generalised Regression Neural Network to the problem of authorship attribution for articles of ambiguous authorship and to assign them to the contemporary writers of the same period. Different sets of variables such as morphology and function words are made use of for classification purposes. Subsequently, results of authorship attribution are discussed.
Use of Generalized Regression Neural Network in Authorship Attribution

References

- Bishop, C. M (2003), Neural Networks for Pattern Recognition (First Indian Edition), Oxford University Press, New Delhi.

Index Terms

Computer Science

Artificial Intelligence
Keywords
Stylometry  Authorship attribution  Artificial Neural Network  Generalized Regression Neural Networks