

# Spam Email Detection Using Machine Learning

Aniruddha Dhatark<sup>1</sup>, Shivam Pandey<sup>2</sup>, Rahul Shinde<sup>3</sup>

UG Students, Department of Information Technology<sup>1,2,3</sup>

Ramrao Adik Institute of Technology, Nerul, Maharashtra, India

**Abstract:** *The voluntary boom in unsolicited mail emails (additionally referred to as unsolicited mail) has required the combination of unsolicited mail filters. Today, system gaining knowledge of structures are used to clear out unsolicited mail emails at a completely powerful rate. This article examines the connection among the maximum famous system gaining knowledge of strategies (selection tree class, ADA-boost, logistic regression, random woodland algorithms) and the subject of classifying unsolicited mail emails. Email filtering is primarily based totally on a records class approach. Choosing the maximum sudden overall performance classifier whilst classifying records is a essential improvement. Getting rid of the quality descriptive capabilities and nicely classifying inner messages on this manner is likewise a massive problem. The define is taken into consideration beneath the precision clause..*

**Keywords:** Spam, Ham, Random Forest, Machine Learning, Ada-Boost, Comparative study

## REFERENCES

- [1]. Issam dagher, Rima Antoun, "Ham- Spam Filtering Using DIFFERENT PCA SCENARIOS", 2016 IEEE International Conference on Computational Science and Engineering, IEEE International Conference on Embedded and Ubiquitous Computing, and International Symposium on Distributed Computing and Applications to Business, Engineering and Science J. Clerk Maxwell, A Treatise on Electricity and Magnetism, 3rd ed., vol. 2. Oxford: Clarendon, 1892, pp.68–73.
- [2]. Schölkopf, B., Smola, A.J.: Learning with Kernels. MIT Press, Cambridge (2002)
- [3]. Y. Yorozu, M. Hirano, K. Oka, and Y. Tagawa, "Electron spectroscopy studies on magneto-optical media and plastic substrate interface," IEEE Transl. J. Magn. Japan, vol. 2, pp. 740–741, August 1987 [Digests 9<sup>th</sup> Annual Conf. Magnetics Japan, p. 301, 1982].
- [4]. M. Young, The Technical Writer's Handbook. Mill Valley, CA: University Science, 1989.
- [5]. Ali, S., Smith-Miles, K.A.: A meta-learning approach to automatic kernel selection for support vector machines. Neurocomputing 20(1-3), 173–186 (2006).
- [6]. Spam (electronic), [http://en.wikipedia.org/wiki/Spam\\_%28electronic%29](http://en.wikipedia.org/wiki/Spam_%28electronic%29) Vapnik, V.: Statistical Learning Theory. John Wiley and Sons (1998).
- [7]. Li, K. and Zhong, Z., "Fast statistical spam filter by approximate classifications", In Proceedings of the Joint international Conference on Measurement and Modeling of Computer Systems. Saint Malo, France, 2006.
- [8]. D. Heckerman and M. P. Wellman, "Bayesian networks," no. 3, March 1995, pp. 27–30. [9] S. Whittaker, V. Bellotti and P. Moody, "Introduction to this special issue on revisiting and reinventing e-mail", Human-Computer Interaction, 20(1), 1-9, 2005.