Penulisan Abstrak

ALI RIDHO BARAKBAH

Tata Tulis Karya Ilmiah
Minggu ke-7

Politeknik Elektronika Negeri Surabaya
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Abstrak

- Ringkasan dari isi karya tulis ilmiah
- Miniatur dari karya tulis ilmiah yang ditulis dengan singkat
- Biasanya terdiri dari 1 atau 2 paragraf (terkadang 3 paragraf)
- Abstrak biasanya ditulis pada akhir karya tulis ilmiah
- Abstrak biasanya sering diikuti dengan kata kunci (keywords)

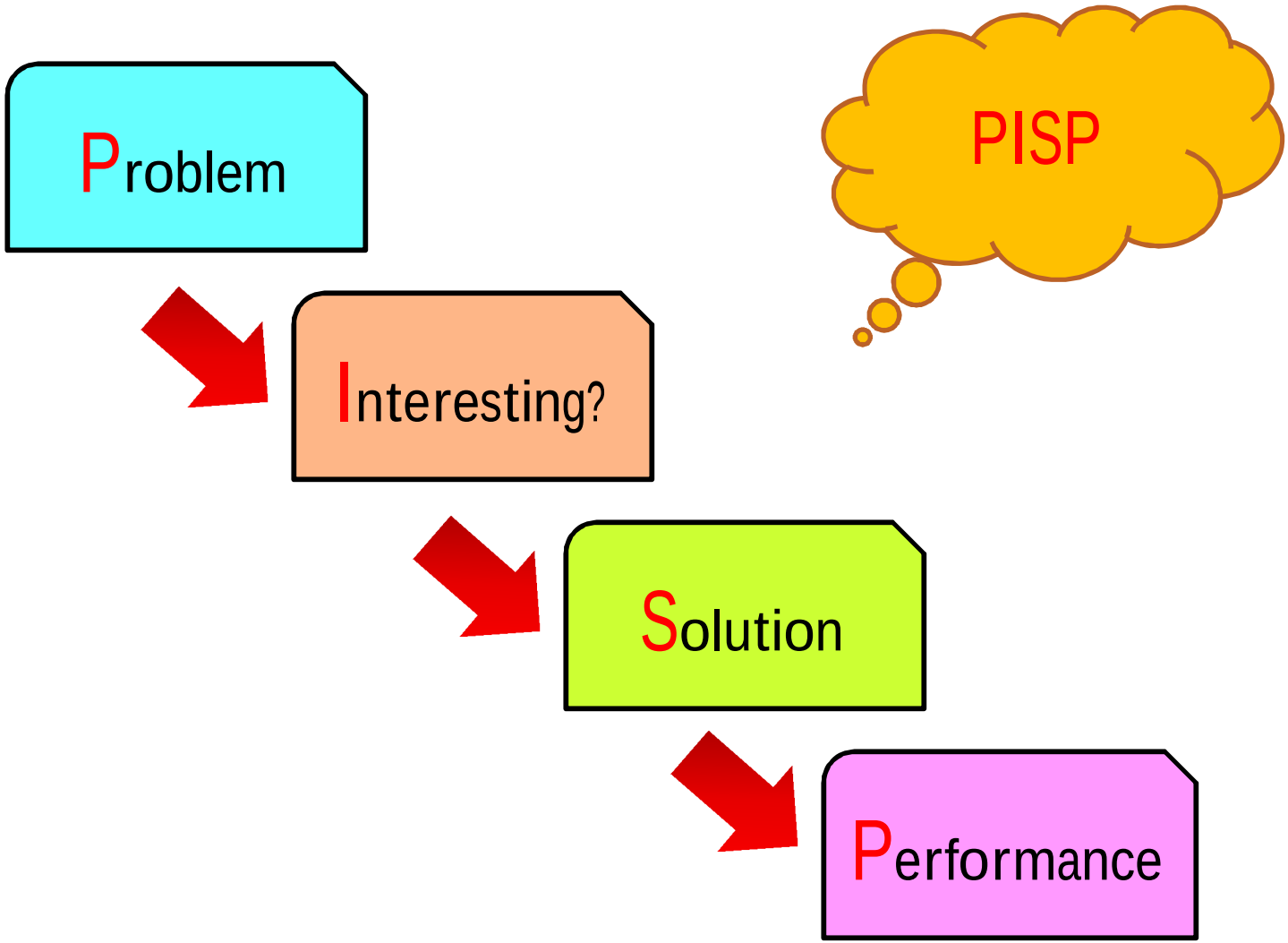
Pentingnya Abstrak

- Ibarat rumah, abstrak adalah pintu masuk dari pembaca yang akan membaca suatu karya tulis ilmiah.
- Jika abstrak ditulis jelas dan menarik, pembaca akan tertarik lebih lanjut membaca suatu karya tulis ilmiah.

Hati-hati!

- Banyak karya riset yang bagus dan ditulis dengan baik, akan tetapi abstraknya ditulis tidak jelas dan tidak menarik, membuat pembaca tidak tertarik membaca isi karya tulis tersebut secara keseluruhan.
- Sangat disayangkan, ide-ide yang bagus dalam suatu karya tulis ilmiah tidak mendapat apresiasi gara-gara penulisan abstrak yang tidak dikemas dengan baik.

Aliran Penulisan Abstrak



Problem

Deskripsikan permasalahan yang diangkat dalam suatu karya ilmiah

Interesting?

Tuliskan alasan kenapa permasalahan itu penting untuk diselesaikan

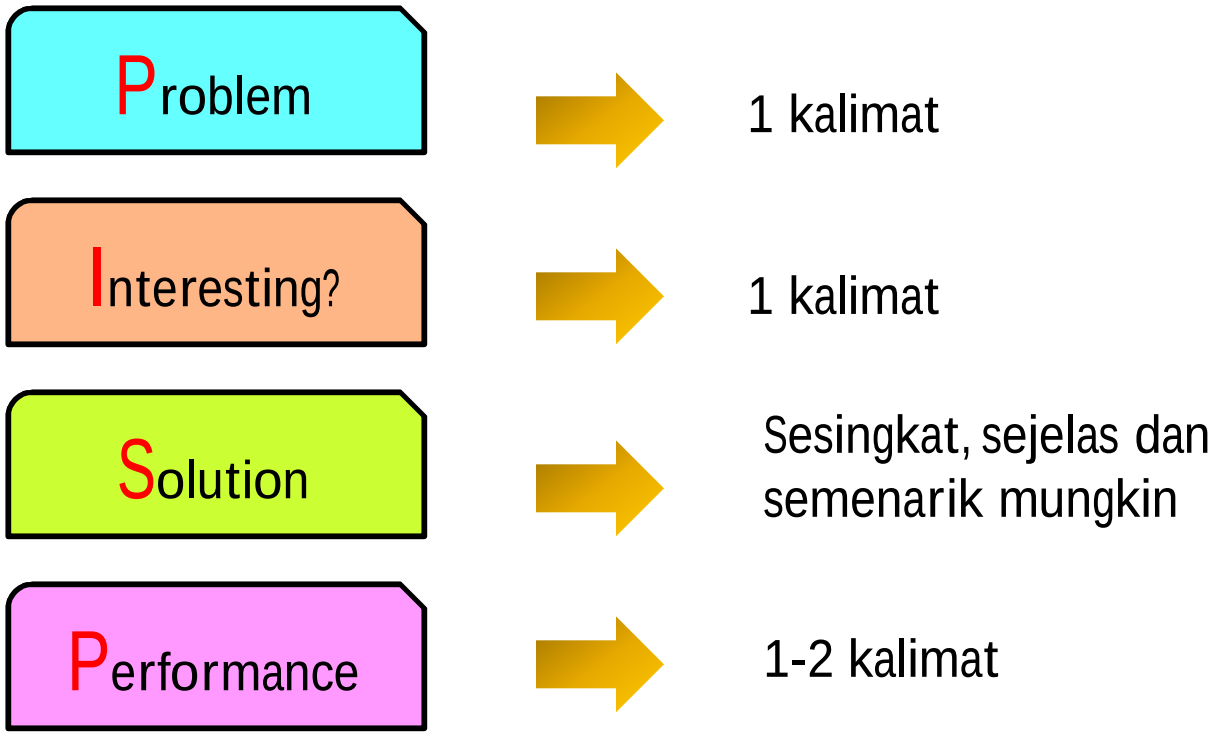
Solution

Ajukan pendekatan/metode/algoritma anda untuk menyelesaikan permasalahan tersebut

Performance

Buatlah klaim kehebatan pendekatan/metode/ algoritma yang anda ajukan terhadap kinerjanya setelah diujicoba untuk menyelesaikan masalah

Panjang kalimat



Catatan: Dalam Abstrak pada Tugas Akhir/Skripsi/Disertasi, panjang kalimat bisa lebih panjang dari diatas dan tergantung pada aturan institusi.

Contoh Abstrak dalam paper ilmiah

This paper presents a cluster oriented image retrieval system with context recognition mechanism for selection subspaces of color features. Our idea to implement a context in the image retrieval system is how to recognize the most important features in the image search by connecting the user impression to the query. We apply a context recognition with Mathematical Model of Meaning (MMM) and then make a projection to the color features with a color impression metric. After a user gives a context, the MMM retrieves the highest correlated words to the context. These representative words are projected to the color impression metric to obtain the most significant colors for subspace feature selection. After applying subspace selection, the system then clusters the image database using Pillar-Kmeans algorithm. The centroids of clustering results are used for calculating the similarity measurements to the image query. We perform our proposed system for experimental purpose with the Ukiyo-e image datasets from Tokyo Metropolitan Library for representing the Japanese cultural image collections.

Ali Ridho Barakbah and Yasushi Kiyoki, "Cluster Oriented Image Retrieval System with Context Based Color Feature Subspace Selection", The Industrial Electronics Seminar (IES) 2009, Surabaya, Indonesia.

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Abstract— Clustering performance of the K-means greatly relies upon the correctness of the initial centroids. Usually the initial centroids for the K-means clustering are determined randomly so that the determined centroids may reach the nearest local minima, not the global optimum. This paper proposes a new approach to optimizing the designation of initial centroids for K-means clustering. This approach is inspired by the thought process of determining a set of pillars' locations in order to make a stable house or building. We consider the pillars' placement which should be located as far as possible from each other to withstand against the pressure distribution of a roof, as identical to the number of centroids amongst the data distribution. Therefore, our proposed approach in this paper designates positions of initial centroids by using the farthest accumulated distance between them. First, the accumulated distance metric between all data points and their grand mean is created. The first initial centroid which has maximum accumulated distance metric is selected from the data points. The next initial centroids are designated by modifying the accumulated distance metric between each data point and all previous initial centroids, and then, a data point which has the maximum distance is selected as a new initial centroid. This iterative process is needed so that all the initial centroids are designated. This approach also has a mechanism to avoid outlier data being chosen as the initial centroids. The experimental results show effectiveness of the proposed algorithm for improving the clustering results of K-means clustering.

Ali Ridho Barakbah and Yasushi Kiyoki, "A Pillar Algorithm for K-Means Optimization by Distance Maximization for Initial Centroid Designation", The IEEE Symposium on Computational Intelligence and Data Mining (CIDM) 2009, Nashville-Tennessee, USA, March 30-April 2, 2009.

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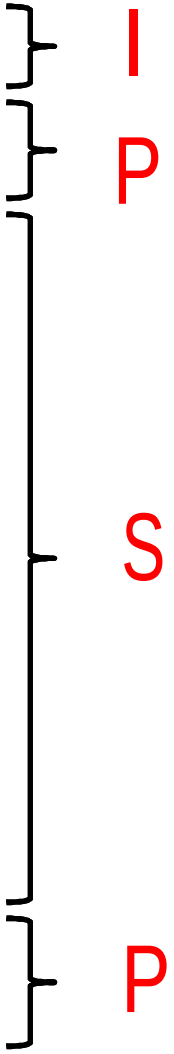

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Reference

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- Simon Peyton Jones, How to write a great research paper, Microsoft Research, Cambridge.