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1.	Authors:	Pankaj Kawadkar, Shiv Prasad, Amiya Dhar Dwivedi	
	Paper Title:	Deadlock Avoidance based on Banker's Algorithm for Waiting State Processes	
	<p>Abstract: This paper presents an algorithm for deadlock avoidance used for Waiting State processes. This method is an improvement over Banker's algorithm. In Banker's algorithm, when processes goes to waiting state then there is no proper approach (FCFS is not sufficient) are available for the sequencing of waiting processes. In this paper a methodology has been proposed, which consider the number of allocated resources and/or number of instances as well as need of resources in order to select a waiting process for the execution.</p> <p>Keywords: Banker's Algorithm, Circular Wait, Edsger Dijkstra, Hold & Wait, Mutual Exclusion, No Preemption.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Operating System Concepts (Silberschatz, Galvin, Gagne) 2. Banaszak, Z.A.; Krogh, B.H. Deadlock avoidance in flexible manufacturing systems with concurrently competing process flows[J]. IEEE Transactions on Robotics and Automation, 1990, 6(6), 724 –734. 3. I.BenAbdallah ; H.ElMaraghy. Deadlock Prevention and Avoidance in FMS:A Petri Net-Based Approach[J]. International Journal of Advanced Manufacturing Technology, 1998, 16(1). 4. Naiqi Wu, MengChu Zhou. Avoiding deadlock and reducing starvation and blocking in automated manufacturing systems[J]. IEEE Transactions on Robotics and Automation, 2001, 17(5), 658 –669. 5. Viswanadham, N.; Narahari, Y.; Johnson, T.L. Deadlock prevention and deadlock avoidance in flexible manufacturing systems using Petri net models[J]. IEEE Transactions on Robotics and Automation, 1990, 6(6), 713–723. 6. T. Araki, Y. Sugiyama, and T. Kasami. Complexity of the deadlock avoidance problem. In 2nd IBM Symp. Math. Found. Computer Sci., pages 229–257, 1977. 7. Tricas, F., Colom, J.M., Ezpeleta, J.: Some improvements to the banker's algorithm based on the process structure. Proceedings of IEEE International Conference on Robotics and Automation 3 (2000) 2853{2858 San Francisco, CA, USA. 8. Tricas, F.: Deadlock Analysis, Prevention and Avoidance in Sequential Resource Allocation Systems. PhD thesis, Departamento de Informaticas Ingenerate de Sistemas, Universidad de Zaragoza (May 2003) 		1-2
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	Paper Title:	Vehicle Tracking in Extreme Noisy Channel Through Kalman Filter	
	<p>Abstract: Kalman Filter is one of the most important discoveries for a signal processing engineer. It uses a system's dynamics model (i.e., physical laws of motion), known control inputs to that system, and measurements (such as from sensors) to form an estimate of the system's varying quantities (its state) that is better than the estimate obtained by using any one measurement alone. This paper tries to estimate the correct position of a vehicle in an extreme noisy channel and compares it to the conventional filtering methods like running average etc. The paper presents threshold based technique along with Gaussian filtering to differentiate object from the background and estimates the two dimensional position of the vehicle.</p> <p>Keywords: Kalman Filter, Object Tracking, Gaussian, Particle Filter, Adaptive filter.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Adaptive Filter Theory by Simon Haykins fourth edition. 2. M.S.Grewal, A.P. Andrews, "Kalman Filtering - Theory and Practice Using MATLAB", Wiley, 2001 3. "An Introduction to the Kalman Filter", Greg Welch, Gary Bishop 4. C. Hue, J.P. Le Cadre and P.Perez, (2002) "Tracking multiple objects with particle filtering", IEEE Transactions on Aerospace and Electronic Systems, 791-812. 5. D. Magee, (2004) "Tracking multiple vehicles using foreground, background and motion models". Image and Vision Computing, 22:143–155. 6. D. Serby, E. K. Meier and L. V. Gool, (2004) "Probabilistic Object Tracking Using Multiple Features", IEEE Pattern Recognition Intelligent Transportation Systems, 43-53. 7. C. Hue, J.P. Le Cadre and P.Perez, (2002) "Tracking multiple objects with particle filtering", IEEE Transactions on Aerospace and Electronic Systems, 791-812. 		3-6