

Patent Selections:

The patents annotated in this section have been selected from various patent databases. These recent patents are relevant to the articles published in this journal issue, categorized by different computation methods, bioinformatics, medical informatics, computer graphics, artificial intelligence, cybernetics, hardware architectures, software, theory and methods involved and related to computer science.

AUGMENTED REALITY, MOBILE APPLICATIONS, MOBILE APPLICATIONS & MAGIC LENS INTERFACE

1. Baillot, Y. Augmented reality-based system and method providing status and control of unmanned vehicles. *US7920071 (2011)*.
2. Ikeda, A., Kuroda, R., Urata, M., Ito, K. Game operating device. *US7931535 (2011)*.
3. Ikeda, A., Ito, K., Kuroda, R., Takeda, G., Urata, M. Video game system with wireless modular handheld controller. *US7927216 (2011)*.
4. John, B.S. Method for determining the position of a marker in an augmented reality system. *US7881560 (2011)*.
5. Ohta, K. Inclination calculation apparatus and inclination calculation program, and game apparatus and game program. *US7877224 (2011)*.
6. Rimmer, G. System and method for adding dynamic information to digitally signed mobile applications. *US7877461 (2011)*.
7. Paul, J., Barton, J., Chakraborty, A., Dirisala, S. Techniques for supporting multiple devices in mobile applications. *US7873722 (2011)*.
8. Silver, A. System and method for enabling VPN-less session setup for connecting mobile data devices to an enterprise data network. *US7873001 (2011)*.
9. Kloba, D., Velline, A., Wei, L., Baynes, Jr., R. W., Sethi, R. Method and system for accessing applications and data, and for tracking of key indicators on mobile handheld devices. *US7873353 (2011)*.
10. Sato, K., Ikeda, A., Ito, K., Kuroda, R., Urata, M. Accelerometer-based controller. *US7774155 (2010)*.
11. Razzaque, S.A., Keller, K.P., State, A., Green, C.K., Ackerman, J.D. System and method of providing real-time dynamic imagery of a medical procedure site using multiple modalities. *US7728868 (2010)*.
12. Ohta, K. Acceleration data processing program, and storage medium, and acceleration data processing apparatus for use with the same. *US7716008 (2010)*.
13. Gyorfi, J.S., Buhrke, E. R., Lopez, J. M., Yu, H. Mobile virtual and augmented reality system. *US7844229 (2010)*.
14. Yu, H., Buhrke, E.R., Gyorfi, J.S., Lopez, J. M. Mobile virtual and augmented reality system. *US7853296 (2010)*.
15. Chang, N.L.A., Samadani, R. Systems and methods of interfacing with a machine. *US7755608 (2010)*.
16. Kloba, D.D., Gray, M. R., Moore, D. M., Whittaker, T. E., Williams, D. J., Weinstein, R. Z., Freeman, J.E., Upson, L.M., Dingle, A. T. System, method, and computer program product for executing scripts on mobile devices. *US7840647 (2010)*.
17. Vishwanathan, K. K., Iyer, P.R., Sundar, R. Systems and methods for providing concurrent mobile applications to mobile communication devices. *US7751848 (2010)*.
18. Elms, K., Milliner, S., Vayssiere, J.J. P. Object space with active objects. *US7730493 (2010)*.
19. Toyama, K., Uyttendaele, M., Crow, W. H. High dynamic range image viewing on low dynamic range displays. *US7643035 (2010)*.

BUSINESS PROCESS MANAGEMENT, MANAGEMENT INFORMATION SYSTEMS, KEY PERFORMANCE INDICATORS (KPIs) & DECISION SUPPORT

1. Backhaus, B., Lusic, L., Ebesu, D. Multiple resource planning system. *US7925521 (2011)*.
2. Nielsen, J., Lowe, N. J., Honeyman, K., Rohwer, C. L., Glaeske, B., Mark, H. R., Holm-Petersen, M., de Booi, A. Adaptable user interface for business software. *US7900152 (2011)*.
3. von Unwerth, C. D., Taylor, N. J. Industry standards modeling systems and methods. *US20110055802 (2011)*.
4. Reichhart, T. Communication method. *US7949623 (2011)*.
5. Toussaint, A., Meyer, D.P., Sabaris, D., Chiocconi, E., Rubio, E. C., Gabeiras, E. L., Sussenburger, H., Alvarez, P., Veiga, P.G., Aliss, J., Roldos, G. Business process management (bpm) add-in for office software. *US20100293503 (2010)*.
6. Gottumukkala, R. S., Honeyman, J. W., Natsu, M. G., Ehrenberg, M. V., Lowe, N.J., Jensen, T. E., Rohwer, C. Creating, storing and viewing process models. *US7917555 (2010)*.
7. Schmidt, P., Baeuerle, S., Naundorf, S., Burgmeier, H., Liebig, C. Business process management for a message-based exchange infrastructure. *US7788319 (2010)*.
8. Chen, Q., Hsu, M., Mehta, V. O. Dynamic interface between BPSS conversation management and local business management. *US7729922 (2010)*.

9. Park S.H., Jang J. Y. Business process management and management method thereof using multi-touch user interfaces. **KR2010026513 (2010).**
10. Jianzhong, L., Cheng, W., Zuchang Z. Open-type lab management information system. **CN101789107 (2010).**
11. Ye Q. Economic, cultural and guard comprehensive management information system and method. **CN101789106 (2010).**

MULTIMEDIA TOOLS, ALGORITHMS & GRAPH-ALGORITHMS

1. Owen, J.E., Diaz, Raul, Z., Colavin, O. Electronic system and method for selectively allowing access to a shared memory. **US7898548 (2011 & 2010).**
2. Buscema, P.M. Neural network for processing arrays of data with existent topology, such as images and application of the network. **US7877342 (2011).**
3. Dumitras, A., Haskell, B.G. Method and system for video encoding using a variable number of B frames. **US7889792 (2011).**
4. Nosella, T.J., Wilson, I.H. Gateway load balancing protocol. **US7881208 (2011).**
5. Johnson, F.E., Ogdon, R.H., Adornato, R.L. Apparatus, method, and computer readable medium for providing a presentation on a network having a plurality of synchronized media types. **US7853711 (2010).**
6. Sull, S., Kim, H. System and method for indexing, searching, identifying, and editing multimedia files. **US7823055 (2010).**
7. Colbath, S., Shepard, S., Kubala, F. G. Multimedia recognition system comprising a plurality of indexers configured to receive and analyze multimedia data based on training data and user augmentation relating to one or more of a plurality of generated documents. **US7801838 (2010).**
8. Bargerion, D.M., Brush, A.J.B., Gupta, A. Robust anchoring of annotations to content. **US7747943 (2010).**
9. Rogers, I., New, M. D., Heyman, S. Media engine user interface for managing media. **US7739723 (2010).**
10. Czupek, A.P., Durkin, B.T., McCabe, T.G., Wolf, B.M. Cuba, D. M., Kronstein, J.G., Kane, T. C. System and method for matching one or more incoming order to a standing order based on time order priority allocation. **US20100088216 (2010).**
11. Czupek, A.P., Durkin, B.T., McCabe, T.G., Wolf, B.M., Cuba, D.M., Kronstein, J.G., Kane, T.C. System and method for matching one or more incoming order to a standing order based on multiple order priority allocation. **US20100088215 (2010).**
12. Czupek, A.P., Durkin, B.T., McCabe, T.G., Wolf, B.M., Cuba, D.M., Kronstein, J.G., Kane, T.C. System and method for matching one or more incoming order to a standing order based on multi-level allocation. **US20100088214 (2010).**
13. Czupek, A.P., Durkin, B.T., McCabe, T.G., Wolf, B.M., Cuba, D.M., Kronstein, J.G., Kane, T.C. System and method for matching one or more incoming order to a standing order based on multiple order priority. **US20100088213 (2010).**
14. Czupek, A.P., Durkin, B.T., McCabe, T.G., Wolf, B.M., Cuba, D.M., Kronstein, J.G., Kane, T.C. Systems and methods for matching one or more incoming order to a standing order as a function of an inner market parameter. **US20100088212 (2010).**
15. Villegas, K., Joye, M., Chevallier-Mames, B. Method of securely implementing a cryptography algorithm of the RSA type, and a corresponding component. **US7860242 (2010).**
16. Young, C.M., Heineman, D.E., Chandler, G.T. Control system optimization via independent parameter adjustment. **US7825642 (2010).**
17. Pizzo, M.J., Divringi, L.R. Use of server processing of temporary results for stateless paging over arbitrary user queries. **US7849109 (2010).**
18. Baumgartner, J.R., Jacobi, C., Paruthi, V., Xu, J. Conjunctive BDD building and variable quantification using case-splitting. **US7739635 (2010).**

OBJECT CATEGORIZATION BENCHMARKS, COREL, CALTECH & IMAGE RETRIEVAL

1. Witte, S. Visual categorization system. **WO2011029483 (2011).**
2. Boulton, T., Scheirer, W., Rocha, A.D.R. System and apparatus for failure prediction and fusion in classification and recognition. **US20110106734 (2011).**
3. Doretto, G., Yao, Y. System, method and program product for camera-based object analysis. **US20110044497 (2011).**
4. Doretto, G., Yao, Y. System, method and program product for camera-based object analysis. **US7953245 (2011).**
5. Saphir, W.C. Scheduling system and method in a hierarchical temporal memory based system. **US7941392 (2011).**
6. Marianetti, II, R., Astier, F. Hierarchical temporal memory based system including nodes with input or output variables of disparate properties. **US7941389 (2011).**
7. Li, Jia., Wang, J.Z. Real-time computerized annotation of pictures. **US7941009 (2011).**
8. George, D., Hawkins, J.C., Jaros, R.G. Method and apparatus for detecting spatial patterns. **US7937342 (2011).**
9. Bressan, M., Dance, C.R., Csurka, G. Class-based image enhancement system. **US7933454 (2011).**

10. Hogue, A.W., Vespe, D.J., Kehlenbeck, A., Gordon, M., Reynar, J.C., Alpert, D.B. Data object visualization using maps. **US7925676 (2011).**
11. Saphir, W., Marianetti, II, R., Hawkins, J. Message passing in a hierarchical temporal memory based system. **US7904412 (2011).**
12. Winn, J., Shotton, J. Object detection and recognition system. **US7912288 (2011).**
13. George, D., Hawkins, J. Belief propagation in a hierarchical temporal memory based system. **US7899775 (2011).**
14. Doretto, G. System, method and program product for camera-based object analysis. **EP2287782 (2011).**
15. Trifonov, M.I., Sharonova, O.V. Method and apparatus for selecting an object in an image. **US7840074 (2010).**
16. Sinclair, D.A., Wood, K.R. Method of and apparatus for classifying an image. **US7778462 (2010).**
17. Abe, M., Yoshida, Y. Image retrieval device, image retrieval system, image retrieval method, and program. **JP2010066959 (2010).**
18. Zoran, S. Image retrieval device. **JP2010250569 (2010).**
19. Jia, M., Li, H., Xie, X., Chen, Z., Ma, W.-Y. Automatic classification of objects within images. **US7813561 (2010).**
20. Winn, J., Rother, C., Criminisi, A., Shotton, J. Object recognition using textons and shape filters. **US7840059 (2010).**

MAGNETIC HARD DISK DRIVES, ACTUATOR, POSITIONAL ERROR SIGNALS & REPEATABLE RUNOUT

1. Takaishi, K. Position control method, position control device, and medium storage device having disturbance suppression function. **US7953502 (2011).**
2. Kehren, J. M., Savu, P. M. Coatings and methods for particle reduction. **US7923133 (2011).**
3. Ferren, B., Jung, E. K. Y., Tegreene, C. T. Method and system for rotational control of data storage devices. **US7916615 (2011).**
4. Pelrine, R. E., Kornbluh, R. D., Pei, Q., Oh, S., Joseph, J. P. Electroactive polymer manufacturing. **US7923064 (2011).**
5. Ferren, B., Goodall, E.V., Jung, E. K. Y. Fluid mediated disk activation and deactivation mechanisms. **US7916592 (2011).**
6. Ferren, B., Jung, E.K. Y., Tegreene, C. T. Rotation responsive disk activation and deactivation mechanisms. **US7907486 (2011).**
7. Knigge, B. E., Payne, R.N., Ruiz, O.J. Proximity recording slider with high air bearing damping in and out of contact. **US7903375 (2011).**

8. Silverbrook, K., Walmsley, S. R. Camera unit incorporating program script scanner. **US7942332 (2011).**
9. Bieg, H., Aubele, K.-E., Kwan, Yim-B. P., Xalter, S., Schmidt, M., Sanvido, S., Nguyen, U.-L. Optical assembly. **US7929227 (2011).**
10. Clew, N. R. Fastener insertion apparatus and method. **US7908727 (2011).**
11. Silverbrook, K. Refillable ink cartridge with inbuilt printhead. **US7891791 (2011).**
12. Silverbrook, K. Image storing and printing device with replaceable casing. **US7864212 (2011).**
13. Salomon, T., Pomerantz, I., Peri, E. File storage in a computer system with diverse storage media. **US7899987 (2011).**
14. Drouin, D., Wahng, B. Feed-forward method for repeatable runout cancellation. **US20100238588 (2010).**
15. Ferren, B., Goodall, E. V., Jung, E. K. Y. Method and system for fluid mediated disk activation and deactivation. **US7796485 (2010).**
16. Drouin, D., Wahng, B. Feed-forward method for repeatable runout cancellation. **US7787210 (2010).**
17. Ferren, B., Jung, E. K. Y. Limited use data storing device. **US7770028 (2010).**
18. Giorgis, B. A., Santini, H. A. E. Method and apparatus for providing a truncated profile probe for perpendicular recording. **US7768742 (2010).**
19. Ferren, B., Jung, E. K. Y. Method of manufacturing a limited use data storing device. **US7748012 (2010).**
20. Ferren, B., Goodall, E., V. Jung, E.K.Y. Fluid mediated disk activation and deactivation mechanisms. **US7694316 (2010).**
21. Ferren, B., Goodall, E., V. Jung, E. K. Y. Limited use memory device with associated information. **US7668069 (2010).**
22. Ferren, B., Jung, E. K. Y. Tegreene, C. T. Rotation responsive disk activation and deactivation mechanisms. **US7668068 (2010).**
23. Miles, M.A. Method of controlling the position of a read/write head and apparatus for testing a read/write head. **US7835106 (2010).**
24. Horisaki, M., Ito, K. Self-servo-write method with repeatable runout compensation. **US7835107 (2010).**
25. Shrinkle, L., Crill, P., Yee, M., Hu, D. Iterative repeatable run-out nulling for magnetic head tester. **US7672073 (2010).**

BANDWIDTH BROKER & RESOURCE MANAGEMENT

1. Wright, S.A. Methods, systems, and computer program products for managing admission control in a regional/access network based on user preferences. **US7889646 (2011).**

2. Voit, E.A., Balkovich, E. E., Goodman, W.D., Gadre, J.G., White, P. E., Young, D. E. Network session management. **US7948968 (2011).**
 3. Lea, C.-T., Chu, J. Non-blocking destination-based routing networks. **US7898957 (2011).**
 4. Faden, G.T. Mechanism for implementing file access control using labeled containers. **US7885975 (2011).**
 5. Siemens, E., Glaeser, F., Brocke, J., Kubsch, S., Koehler, R., Aust, A. Method for managing network resources and network management device. **US7876780 (2011).**
 6. Shively, II., Darrell M., Knight, J., Patil, K.S., Boyd, P.C., Bui, S., Roden, T.A. Automatic hardware failure detection and recovery for distributed max sessions server. **US7925732 (2011).**
 7. Faden, G. T. Mechanism for implementing file access control across a network using labeled containers. **US7882227 (2011).**
 8. Yang, M.J., Rhee, W.S., Hahm, J.H., Kim, Y.S., Lee, J. H., Kim, S.H. Method of performing adaptive connection admission control in consideration of input call states in differentiated service network. **US7652989 (2010).**
 9. Qing, W. Chen, Y., Fan, L., Wu, D., Zou, T. Method for ensuring reliability in network. **US7953015 (2011).**
 10. Voit, E.A., Balkovich, E. E., Goodman, W.D., Gadre, J.G., White, P. E., Young, D. E. Network session management. **US7948968 (2011).**
 11. Bartholomew, D.L., Farris, R.D., Flaherty, S.J. Transport of caller identification information through diverse communication networks. **US7835344 (2010).**
 12. Farris, R. D., Voit, E. A. Packet data network voice call quality monitoring. **US7830860 (2010).**
 13. Patel, P.R., Choksi, O.T., Davidson, K.W., Dantu, R. Method and system for configuring wireless routers and networks. **US7826463 (2010).**
 14. Weiqiang, C., Hongyan, L., Jiandong, L, Min S., Wenchao W., Juan, W. Cognitive-based heterogeneous network resource management system and management method thereof. **CN101808366 (2010).**
 3. Chang, N., Wang, K., Peng, Y. Method, device and system for determining and maintaining quality of service (QoS) parameters of multi-hop network. **WO2011012046 (2011).**
 4. Beziot, N., Aldama, B.J., Ammi, L. Preemption method for management of radio resources in a mobile communication network. **US7912472 (2011).**
 5. Liu, Y., Wang Q. A method and system for evaluating users quality of experience and network device. **EP2244426 (2010 & 2011).**
 6. Santhanam, A.V., Song, B., Gill, H.K. High-priority communications session within a wireless communications system. **US20100214996 (2010).**
 7. Shim, W.J., Park, Y.G., Yu, J.H., Hong, S.C., Oh, S.H. System and method for Qos support in a ubiquitous sensor network. **WO2010021451 (2010).**
 8. Ho, J-M., Lin, W. Rsvp/sbm based up-stream session setup, modification, and teardown for QoS-driven wireless lans. **US20100080196 (2010).**
 9. Ho, J-M., Lin, W. In-band QoS signaling reference model for QoS-driven wireless LANs connected to one or more networks. **US7756092 (2010).**
 10. Ho, J-M., Lin, W. Multipoll for QoS-driven wireless LANs. **US7646756 (2010).**
 11. Ho, J-M., Lin, W. Multipoll for Qos-driven wireless lans. **US20100085933 (2010).**
 12. Rao, Y., Babu, S.P. Providing and receiving on-demand assets using a pool of assets containing unavailable assets. **US7814519 (2010).**
 13. Zhou, J., Bai, Y., Chin, A. Method, terminal and system for coding based on measuring quality of experience of user. **JP2010288277 (2010).**
 14. Wang, Q., Liu, Y., Yu, D., Xiong, L., Yang, D. A method, apparatus and system for adjusting multimedia encoding rate. **WO2010000168 (2010).**
 15. Zhou, J., Bai, Y., Chen, L. Coding method, user equipment and system based on measuring quality of experience of user. **US20100315968 (2010).**
 16. Zhou, J., Bai, Y., Chen, L. Coding method, user equipment and system based on measuring quality of experience of user. **EP2262148 (2010).**
 17. Jianyou H. Measuring method for internet service user to percept QoE. **CN101783754 (2010).**
 18. Ho, J-M., Lin, W. RSVP/SBM based side-stream session setup, modification, and teardown for QoS-driven wireless LANs. **US7738378 (2010).**
- NETWORKED VIDEO SERVICES, QoE & QoS**
1. Wang, Q., Liu, Y., Yu, D., Xiong, L., Yang, D. Method, apparatus, and system for adjusting multimedia encoding rate. **US20110090922 (2011).**
 2. Wu, H., Zhu, Y., Zhang, Q., Fang, P. Method, remote access server and system for configuring quality of service. **WO2011026367 (2011).**