Bibliography

[1] K. Navarro and E. Lawrence, "Wsn applications in personal healthcare monitoring systems: A heterogeneous framework," in *eHealth, Telemedicine, and Social Medicine, 2010. ETELEMED '10. Second International Conference on*, pp. 77–83, Feb 2010.

[2] M. Durisic, Z. Tafa, G. Dimic, and V. Milutinovic, "A survey of military applications of wireless sensor networks," in *Embedded Computing (MECO), 2012 Mediterranean Conference on*, pp. 196–199, June 2012.

[3] D. Ye, D. Gong, and W. Wang, "Application of wireless sensor networks in environmental monitoring," in *Power Electronics and Intelligent Transportation System (PEITS), 2009 2nd International Conference on*, vol. 1, pp. 205–208, Dec 2009.

[4] A. Mainwaring, D. Culler, J. Polastre, R. Szewczyk, and J. Anderson, "Wireless sensor networks for habitat monitoring," in *Proceedings of the 1st ACM International Workshop on Wireless Sensor Networks and Applications*, WSNA '02, (New York, NY, USA), pp. 88–97, ACM, 2002.

[5] A. Qandour, D. Habibi, and I. Ahmad, "Wireless sensor networks for fire emergency and gas detection," in *Networking, Sensing and Control (ICNSC), 2012 9th IEEE International Conference on*, pp. 250–255, April 2012.

[6] A. Ko, H. Y. K. Lau, and R. Sham, "Application of distributed wireless sensor network on humanitarian search and rescue systems," in *Future Generation Communication and Networking, 2008. FGCN '08. Second International Conference on*, vol. 2, pp. 328–333, Dec 2008.

[7] K. Sha, W. Shi, and O. Watkins, "Using wireless sensor networks for fire rescue applications: Requirements and challenges," in *Electro/information Technology, 2006 IEEE International Conference on*, pp. 239–244, May 2006.

[8] S. K. Singh, M. P. Singh, and D. K. Singh, "Energy efficient homogenous clustering algorithm for wireless sensor networks," 2010.

[9] S.Gamwarige and E.C.Kulasekere, "An energy efficient distributed clustering algorithm for ad-hoc deployed wireless sensor networks in building monitoring applications," *Electronic Journal of Structural Engineering (eJSE) Special Issue: Sensor Network on Building Monitoring: from Theory to Real Application*, pp. 11–27, 2009.

[10] K. M. L. Yang, R. Prassana, "On-site information systems design for emergency first responders," *Journal of Information Technology Theory and Application (JITTA)*, pp. 5–27, 2010.

[11] P. R. Y. L. Yang, Y., "Opportunities for wsn for facilitating fire emergency response," *Proceedings of ICIAfS 10*, pp. 81–86, 2010.

[12] J. Akerberg, M. Gidlund, and M. Bjorkman, "Future research challenges in wireless sensor and actuator networks targeting industrial automation," in *Industrial Informatics (INDIN), 2011 9th IEEE International Conference on*, pp. 410–415, July 2011.

[13] D. Puccinelli and M. Haenggi, "Wireless sensor networks: Applications and challenges of ubiquitous sensing," *IEEE Circuits and systems magazine*, pp. 19–29, 2005.

[14] Gowrishankar.S, T.G.Basavaraju, M. D.H, and S. K. S. 4, "Issues in wireless sensor networks," *World Congress on Engineering 2008 Vol I*, 2008.

[15] K. Lorincz, D. Malan, T. Fulford-Jones, A. Nawoj, A. Clavel, V. Shnayder, G. Mainland, M. Welsh, and S. Moulton, "Sensor networks for emergency response: challenges and opportunities," *Pervasive Computing, IEEE*, vol. 3, pp. 16–23, Oct 2004.

[16] W. Heinzelman, A. Chandrakasan, and H. Balakrishnan, "Energy-efficient communication protocol for wireless microsensor networks," *Proceedings of the 33rd Hawaii International Conference on System Sciences (HICSS '00)*, January 2000.

[17] G. Smaragdakis, I. Matta, and A. Bestavros, "Sep: A stable election protocol for clustered heterogeneous wireless sensor networks," *Proceedings of the International Workshop on SANPA, (Boston)*, pp. 1–11, August 2004.

[18] O. Younis and S. Fahmy, "Heed: A hybrid, energy-efficient, distributed clustering approach for ad-hoc sensor networks," *IEEE Transactions on Mobile Computing, vol. 3*, pp. 366–379, October-December 2004.

[19] Y. Wang, Q. Zhao, and D. Zheng, "Energy-driven adaptive clustering data collection protocol in wireless sensor networks," *in Proceedings of the 2004 International Conference on Intelligent Mechatronics and Automation (ICIMA2004), (UESTC, Chengdu, China)*, pp. 599–604, August 2004.

[20] J. YU, Y. QI, and G. WANG, "An energy-driven unequal clustering protocol for heterogeneous wireless sensor networks," *Journal of Control Theory and Applications*, pp. 133–139, 2011.

[21] J. Chang, "An energy-aware cluster-based routing algorithm for wireless sensor networks," *ournal of Information Science and Engineering 26*, pp. 2159–2171, 2010.

[22] A. A. Abbasi and M. Younis, "A survey on clustering algorithms for wireless sensor networks," *Computer Communications*, vol. 30, no. 1415, pp. 2826 – 2841, 2007. Network Coverage and Routing Schemes for Wireless Sensor Networks.

[23] O. Boyinbode, H. Le, A. Mbogho, M. Takizawa, and R. Poliah, "A survey on clustering algorithms for wireless sensor networks," in *Network-Based Information Systems (NBiS), 2010 13th International Conference on*, pp. 358–364, Sept 2010.

[24] M. Xie and X. Wang, "An energy-efficient tdma protocol for clustered wireless sensor networks," in *Computing, Communication, Control, and Management, 2008. CCCM '08. ISECS International Colloquium on*, vol. 2, pp. 547–551, Aug 2008.

[25] O. Younis, M. Krunz, and S. Ramasubramanian, "Node clustering in wireless sensor networks: recent developments and deployment challenges," *Network, IEEE*, vol. 20, pp. 20–25, May 2006.

[26] S. Singh, M. P. Singh, and D. K. Singh, "Energy efficient homogenous clustering algorithm for wireless sensor networks," *International Journal of Wireless & Mobile Networks (IJWMN)*, vol. 2, August 2010.

[27] K. Ferentinos and T. Tsiligiridis, "Evolutionary energy management and design of wireless sensor networks," in *Sensor and Ad Hoc Communications and Networks, 2005. IEEE SECON 2005. 2005 Second Annual IEEE Communications Society Conference on*, pp. 406–417, Sept 2005.

[28] C. Li, M. Ye, G. Chen, and J. Wu, "An energy-efficient unequal clustering mechanism for wireless sensor networks," in *Mobile Adhoc and Sensor Systems Conference, 2005. IEEE International Conference on*, pp. 8 pp.–604, Nov 2005.

[29] J. Kamimura, N. Wakamiya, and M. Murata, "A distributed clustering method for energy-efficient data gathering in sensor networks," *Int. J. Wire. Mob. Comput.*, vol. 1, pp. 113–120, feb 2006.

[30] B. Elbhiri, R. Saadane, and D. Aboutajdine, "Stochastic distributed energy efficient clustering (sdeec) for heterogeneous wireless sensor networks," *ICGST-CNIR Journal*, vol. 9, pp. 11–17, Dec 2009.

[31] M. Tong and M. Tang, "Leach-b: An improved leach protocol for wireless sensor network," in *Wireless Communications Networking and Mobile Computing (WiCOM), 2010 6th International Conference on*, pp. 1–4, Sept 2010.

[32] W. Xinhua and W. Sheng, "Performance comparison of leach and leach-c protocols by ns2," in *Distributed Computing and Applications to Business Engineering and Science (DCABES), 2010 Ninth International Symposium on*, pp. 254–258, Aug 2010.

[33] D. Cai and D. Zhu, "Research and simulation of energy efficient protocol for wireless sensor network," in *Computer Engineering and Technology (ICCET), 2010 2nd International Conference on*, vol. 1, pp. V1–600–V1–604, April 2010.

[34] D.-S. Kim and Y.-J. Chung, "Self-organization routing protocol supporting mobile nodes for wireless sensor network," in *Computer and Computational Sciences, 2006. IMSCCS '06. First International Multi-Symposiums on*, vol. 2, pp. 622–626, June 2006.

[35] G. Kumar, M. Vinu Paul, and K. Jacob, "Mobility metric based leach-mobile protocol," in *Advanced Computing and Communications, 2008. ADCOM 2008. 16th International Conference on*, pp. 248–253, Dec 2008.

[36] V. Loscri, G. Morabito, and S. Marano, "A two-levels hierarchy for low-energy adaptive clustering hierarchy (tl-leach)," in *Vehicular Technology Conference, 2005. VTC-2005-Fall. 2005 IEEE 62nd*, vol. 3, pp. 1809–1813, Sept 2005.

[37] F. Xiangning and S. Yulin, "Improvement on leach protocol of wireless sensor network," in *Sensor Technologies and Applications, 2007. SensorComm 2007. International Conference on*, pp. 260–264, Oct 2007.

[38] F. Al-Ma'aqbeh, O. Banimelhem, E. Taqieddin, F. Awad, and M. Mowafi, "Fuzzy logic based energy efficient adaptive clustering protocol," in *Proceedings of the 3rd International Conference on Information and Communication Systems*, ICICS '12, (New York, NY, USA), pp. 21:1–21:5, ACM, 2012.

[39] R. M. Hani and A. A.Ijjeh, "A survey on leach-based energy aware protocols for wireless sensor networks," in *Journal of Communications*, vol. 8, pp. 192–206, 2013.

[40] Y. Liang and H. Gao, "An energy-efficient clustering algorithm for data gathering and aggregation in sensor networks," in *Industrial Electronics and Applications, 2009. ICIEA 2009. 4th IEEE Conference on*, pp. 3935–3939, May 2009.

[41] C. Li, M. Ye, G. Chen, and J. Wu, "An energy-efficient unequal clustering mechanism for wireless sensor networks," in *Mobile Adhoc and Sensor Systems Conference, 2005. IEEE International Conference on*, pp. 8 pp.–604, Nov 2005.

[42] W. Heinzelman, A. Chandrakasan, and H. Balakrishnan, "An application-specific protocol architecture for wireless microsensor networks," *Wireless Communications, IEEE Transactions on*, vol. 1, pp. 660–670, Oct 2002.

[43] H. Y. Zhou, D. Luo, Y. Gao, and D. Zuo, "Modeling of node energy consumption for wireless sensor networks," *Wireless Sensor Network*, vol. 3, pp. 18–23, January 2011.

[44] Z. Cheng, M. Perillo, and W. Heinzelman, "General network lifetime and cost models for evaluating sensor network deployment strategies," *Mobile Computing, IEEE Transactions on*, vol. 7, pp. 484–497, April 2008.

[45] H. J. De Silva, S. Gamwarige, and E. C. Kulasekere, "Energy expenditure of global reclustering and local delegation in wireless sensor networks," in *Wireless And Optical Communications Networks (WOCN), 2010 Seventh International Conference On*, pp. 1–6, 2010.

[46] A. Guanathillake and K. Samarasinghe, "Energy efficient clustering algorithm with global and local re-clustering for wireless sensor networks," *International Journal of Electrical, Electronic Science and Engineering*, vol. 7, no. 7, pp. 21 – 28, 2013.

[47] A. Gunathillake and K. Samarasinghe, "An unequal clustering algorithm for an emergency response wireless sensor network," in *Mobile Ad-hoc and Sensor Networks (MSN), 2013 IEEE Ninth International Conference on*, pp. 383–388, Dec 2013.

[48] E. Ever, R. Luchmun, L. Mostarda, A. Navarra, and P. Shah, "Uheed - an unequal clustering algorithm for wireless sensor networks," *Sensornets 2012*, Feb 2012.

[49] m. . M. y. . . h. Cem Ozdogan, title = Round-Robin Scheduling.

[50] A. Guanathillake, D. Weeraddana, K. Walgama, and K. Samarasinghe, "Self-organization of wireless sensor networks based on severity of an emergency environment," in *Industrial and Information Systems (ICIIS), 2013 8th IEEE International Conference on*, pp. 483–488, Dec 2013.

[51] J. L. G. Shafer, *A Mathematical Theory of Evidence*. NJ: Princeton Univ. Press, 1976.

[52] D.M.Weeraddana, K.S.Walgama, and E.C.Kulasekere, "Dempster-shafer information filtering in multi-modality wireless sensor networks," *World Academy of Science, Engineering and Technology*, vol. 79, pp. 644–651, 2013.

[53] G. Forney, "Smokeview (Version 5), A Tool for Visualizing Fire Dynamics Simulation Data, Volume II: Technical Reference Guide," NIST Special Pub-

lication 1017-2, National Institute of Standards and Technology, Gaithersburg, Maryland, May 2009.

[54] S. Gamwarige and C. Kulasekere, "Application of the edcr algorithm in a cluster based multi-hop wireless sensor network," in *Communications and Information Technologies, 2006. ISCIT '06. International Symposium on*, pp. 1118–1123, Oct 2006.

[55] V. Mhatre and C. Rosenberg, "Design guidelines for wireless sensor networks: communication, clustering and aggregation," *Ad Hoc Networks*, vol. 2, no. 1, pp. 45 – 63, 2004.

[56] D. Kumar and R. B. Patel, "Multi-hop data communication algorithm for clustered wireless sensor networks," vol. 2011, pp. 1–10, 2011.

[57] M. Yu, K. Leung, and A. Malvankar, "A dynamic clustering and energy efficient routing technique for sensor networks," *Wireless Communications, IEEE Transactions on*, vol. 6, pp. 3069–3079, August 2007.

[58] M. I. T. C. Science and A. I. Laboratory, "The cricket indoor location system." `http://www.cricket.csail.mit.edu/`, April 2014.

[59] WANDS, "Wireless sensing and controlling system for energy efficient building operation." `http://pdcc.ntu.edu.sg/wands/research.html`, April 2014.

[60] D. Gayan, S. Weeraddana and A. Gunathillake, "Sensor network based adaptable system architecture for emergency situations," *Lecture Notes on Information Theory*, vol. 2, no. 1, pp. 85–91, 2014.

[61] K. Lorincz, J. David, R. Thaddeus, J. Fulford, A. Nawoj, A. Clavel, V. Shnayder, G. Mainland, and M. Welsh, "Sensor networks for emergency response: Challenges and opportunities," *Pervasive Computing, 3(4)*, pp. 16–23, 2004.

[62] X. Chen and B. Zhang, "Improved dv-hop node localization algorithm in wireless sensor networks," in *International Journal of Distributed Sensor Networks*, 2012.

[63] C. Frank and K. Romer, "Algorithms for generic role assignment in wireless sensor networks," *ACM International Conference on Embedded Networked Sensor Systems (Sensys) 2005*, November 2005.

[64] A. Meissner, T. Luckenbach, T. Risse, T. Kirste, and H. Kirchner, "A design challenges for an integrated disaster management communication and information system," *Proceedings of the 1st IEEE Workshop on Disaster Recovery Networks (DIREN 2002)*, June 2002.

[65] W. Dargie and C. Poellabauer, *Fundamentals of Wireless Sensor Networks*. John Wiley & Sons Ltd, 2010.

[66] W. Ji and Z. Liu, "An improvement of dv-hop algorithm in wireless sensor networks," in *Wireless Communications, Networking and Mobile Computing, 2006. WiCOM 2006.International Conference on*, pp. 1–4, 2006.

[67] L. Shen, A. Zhan, X. Wu, P. Yang, and G. Chen, "Efficient emergency rescue navigation with wireless sensor networks," in *Journal of Information Science and Engineering*, vol. 27, 2011.

[68] Y. Tseng, M. Pan, and Y. Tsai, "Wireless sensor networks for emergency navigation," *Computer*, vol. 39, no. 7, pp. 55–62, 2006.

[69] D. Weeraddana, A. Gunathillake, and S. Gayan, "Sensor network based emergency response and navigation support architecture," *International Journal of Electrical, Electronic Science and Engineering*, vol. 7, no. 7, pp. 2 – 7, 2013.

[70] M. Chammem, S. Berrahal, and N. Boudriga, "Smart navigation for firefighters in hazardous environments: A ban-based approach," *ICPCA-SWS*, pp. 82–96, 2013.

[71] H. Koohi, E. Nadernejad, and M. Fathi, "Employing sensor network to guide firefighters in dangerous area," *International Journal of Engineering*, vol. 32, pp. 191–202, 2010.

[72] S. Acharya and K. Moshe, "Evidence combination for hard and soft sensor data fusion," in *Information Fusion (FUSION), 2011 Proceedings of the 14th International Conference on*, pp. 1–8, 2011.

[73] K. Premaratne, M. Murthi, J. Zhang, M. Scheutz, and P. Bauer, "A dempster-shafer theoretic conditional approach to evidence updating for fusion of hard and soft data," in *Information Fusion, 2009. FUSION '09. 12th International Conference on*, pp. 2122–2129, 2009.