UNIVERSITAS
GADJAH MADA
RESOURCE OPTIMIZATION IN HETEROGENEOUS NETWORKS USING DISCRETE FIREFLY ALGORITHM
xaphakdy, khampaserth, Dr. I Wayan Mustika, ST, M.Eng., Ph.D. ; Dr. Prapto Nugroho, S.T., M.Eng., D.Eng., IPM.
Universitas Gadjah Mada, 2020 | Diunduh dari http://etd.repository.ugm.ac.id/

Reference

[1] A. Busson and I. Lahsen-Cherif, "Impact of Resource Blocks Allocation Strategies on Downlink Interference and SIR Distributions in LTE Networks : A Stochastic Geometry Approach," *Wirel. Commun. Mob. Comput.*, vol. 2018, 2018.

[2] S. Tayal, S. K. Goel, and K. Sharma, "a Comparative Study of Various Text," vol. 28, no. June, pp. 83–91, 2015.

[3] Q. K. U. D. Arshad, A. U. Kashif, and I. manzoor Qureshi, "A Review on the Evolution of the Cellular Technologies," *Acad. Perspect. Procedia*, vol. 1, no. 1, pp. 1146–1156, 2019.

[4] S. Oulaourf, A. Haidine, and H. Ouahmane, "Review on using game theory in resource allocation for LTE/LTE-Advanced," *2016 Int. Conf. Adv. Commun. Syst. Inf. Secur. ACOSIS 2016 - Proc.*, 2017.

[5] A. Ghosh, R. Ratasuk, B. Mondal, N. Mangalvedhe, and T. Thomas, "LTE-advanced: Next-generation wireless broadband technology," *IEEE Wirel. Commun.*, vol. 17, no. 3, pp. 10–22, 2010.

[6] T. Nakamura *et al.*, "Trends in small cell enhancements in LTE advanced," *IEEE Commun. Mag.*, vol. 51, no. 2, pp. 98–105, 2013.

[7] I. W. Mustika, K. Yamamoto, H. Murata, and S. Yoshida, "Potential Game Approach for Self-Organized Interference Management in Closed Access Femtocell Networks," *2011 IEEE 73rd Veh. Technol. Conf. (VTC Spring)*, pp. 1–5, 2011.

[8] V. Chandrasekhar and J. G. Andrews, "Femtocell Networks : A Survey," no. September, pp. 59–67, 2008.

[9] O. Mehanna, "SHARING VS . SPLITTING SPECTRUM IN OFDMA FEMTOCELL NETWORKS Omar Mehanna," *2013 IEEE Int. Conf. Acoust. Speech Signal Process.*, pp. 4824–4828, 2013.

[10] I. S. T. He and W. M. Esh, "INTERFERENCE MANAGEMENT IN OFDMA FEMTOCELL NETWORKS: ISSUES AND APPROACHES,"

UNIVERSITAS
GADJAH MADA
RESOURCE OPTIMIZATION IN HETEROGENEOUS NETWORKS USING DISCRETE FIREFLY ALGORITHM
xaphakdy, khampaserth, Dr. I Wayan Mustika, ST, M.Eng., Ph.D. ; Dr. Prapto Nugroho, S.T., M.Eng., D.Eng., IPM.
Universitas Gadjah Mada, 2020 | Diunduh dari http://etd.repository.ugm.ac.id/

Ieee Wirel. Commun., no. February, pp. 104–111, 2010.

[11] H. Lalin, I. W. Mustika, and N. A. Setiawan, "Discrete bacterial foraging optimization for resource allocation in macrocell - femtocell networks," *ETRI J.*, vol. 40, no. 6, pp. 726–735, 2018.

[12] H. Marshoud, H. Otrok, H. Barada, R. Estrada, A. Jarray, and Z. Dziong, "Resource allocation in macrocell-femtocell network using genetic algorithm," in *International Conference on Wireless and Mobile Computing, Networking and Communications*, 2012.

[13] R. Estrada, H. Otrok, and Z. Dziong, "Resource allocation model based on Particle Swarm Optimization for OFDMA macro-femtocell networks," *2013 IEEE Int. Conf. Adv. Networks Telecommun. Syst. ANTS 2013*, pp. 1–6, 2013.

[14] N. Fath, I. W. Mustika, Selo, K. Yamamoto, and H. Murata, "Optimal resource allocation scheme in femtocell networks based on bat algorithm," in *Proceedings - Asia-Pacific Conference on Communications, APCC 2016*, 2016.

[15] M. Bidar, M. Mouhoub, and S. Sadaoui, "Discrete Firefly Algorithm: A New Metaheuristic Approach for Solving Constraint Satisfaction Problems," *2018 IEEE Congr. Evol. Comput. CEC 2018 - Proc.*, no. September, 2018.

[16] K. Nadhir, D. Chabane, and B. Tarek, "Firefly algorithm for optimal allocation and sizing of Distributed Generation in radial distribution system for loss minimization," *2013 Int. Conf. Control. Decis. Inf. Technol. CoDIT 2013*, pp. 231–235, 2013.

[17] K. C. Udaiyakumar and M. Chandrasekaran, "Application of firefly algorithm in job shop scheduling problem for minimization of Makespan," *Procedia Eng.*, vol. 97, pp. 1798–1807, 2014.

[18] M. Hussain and W. K. Jenkins, "Adaptive digital filtering using the bio-inspired firefly algorithm," *Conf. Rec. 51st Asilomar Conf. Signals, Syst. Comput. ACSSC 2017*, vol. 2017-Octob, pp. 816–819, 2018.

[19] L. Sayad, D. Aissani, and L. Bouallouche-Medjkoune, "Placement optimization of wireless mesh routers using firefly optimization algorithm,"

UNIVERSITAS
GADJAH MADA
RESOURCE OPTIMIZATION IN HETEROGENEOUS NETWORKS USING DISCRETE FIREFLY ALGORITHM
xaphakdy, khampaserth, Dr. I Wayan Mustika, ST, M.Eng., Ph.D. ; Dr. Prapto Nugroho, S.T., M.Eng., D.Eng., IPM.
Universitas Gadjah Mada, 2020 | Diunduh dari http://etd.repository.ugm.ac.id/

2018 Int. Conf. Smart Commun. Netw. Technol. SaCoNeT 2018, pp. 144–148, 2018.

[20] S. C. Forum, "050.10.0 3," no. December, pp. 6–7, 2018.

[21] A. Reza, F. Raisa, and K. Abdullah, "Inter cell interference mitigation technique in femtocell and macrocell in LTE system: Review of Different Interference Mitigation Techniques," *Proc. - 14th IEEE Student Conf. Res. Dev. Adv. Technol. Humanit. SCOReD 2016*, pp. 1–4, 2017.

[22] T. Lee, J. Yoon, S. Lee, and J. Shin, "Resource allocation analysis in OFDMA femtocells using fractional frequency reuse," *IEEE Int. Symp. Pers. Indoor Mob. Radio Commun. PIMRC*, pp. 1224–1229, 2010.

[23] S. A. Khwandah, J. P. Cosmas, Z. D. Zaharis, P. I. Lazaridis, I. A. Glover, and S. M. Saleh, "Interference management scheme for co-channel femtocells," *ICAC 2018 - 2018 24th IEEE Int. Conf. Autom. Comput. Improv. Product. through Autom. Comput.*, no. September, pp. 1–4, 2018.

[24] K. Elleithy and Varun Rao, "Femto Cells: Current Status and Future Directions," *Int. J. Next-Generation Networks*, vol. 3, no. 1, pp. 1–9, 2011.

[25] M. Bennis, S. Guruacharya, and D. Niyato, "Distributed learning strategies for interference mitigation in femtocell networks," *GLOBECOM - IEEE Glob. Telecommun. Conf.*, no. 1, pp. 1–5, 2011.

[26] X. Yang and L. Press, *Nature-Inspired Metaheuristic Algorithms Second Edition*. 2010.

[27] A. Baykaso, L. Özbakır, and P. Tapkan, *Artificial Bee Colony Algorithm and Its Application to Generalized Assignment Problem,* no. December. 2007.

[28] A. Creosteanu, G. Gavrila, and L. Creosteanu, "Comparison between an analytical method and two numerical methods on a given electrostatic potential determination problem," *2012 15th Int. Symp. Antenna Technol. Appl. Electromagn. ANTEM 2012*, pp. 3–8, 2012.

[29] F. S. Hillier *et al.*, *Handbook of Metaheuristics International Series in Operations Research & Management Science*. 2003.

UNIVERSITAS
GADJAH MADA
RESOURCE OPTIMIZATION IN HETEROGENEOUS NETWORKS USING DISCRETE FIREFLY ALGORITHM
xaphakdy, khampaserth, Dr. I Wayan Mustika, ST, M.Eng., Ph.D. ; Dr. Prapto Nugroho, S.T., M.Eng., D.Eng., IPM.
Universitas Gadjah Mada, 2020 | Diunduh dari http://etd.repository.ugm.ac.id/

[30] Y. L. Lee, T. C. Chuah, J. Loo, and A. Vinel, "Recent advances in radio resource management for heterogeneous LTE/LTE-A networks," *IEEE Commun. Surv. Tutorials*, vol. 16, no. 4, pp. 2142–2180, 2014.

[31] Z. Li, S. Guo, W. Li, S. Lu, D. Chen, and V. C. M. Leung, "A particle swarm optimization algorithm for resource allocation in femtocell networks," in *IEEE Wireless Communications and Networking Conference, WCNC*, 2012.

[32] M. Al-omari, A. R. Ramli, A. Sali, and R. S. Azmir, "A Femtocell Cross-Tier Interference Mitigation Technique in OFDMA-LTE System : A Cuckoo Search based Approach," *Indian J. Sci. Technol.*, vol. 9, no. 2, pp. 1–12, 2016.

[33] M. Feng, L. Guomin, and G. Wenrong, "Heterogeneous Network Resource Allocation Optimization Based on Improved Bat Algorithm," *2018 Int. Conf. Sens. Networks Signal Process.*, pp. 55–59, 2019.

[34] H. Marshoud, H. Otrok, H. Barada, R. Estrada, and Z. Dziong, "Genetic algorithm based resource allocation and interference mitigation for OFDMA macrocell-femtocells networks," in *Proceedings of 2013 6th Joint IFIP Wireless and Mobile Networking Conference, WMNC 2013*, 2013, pp. 1–7.

[35] X.-S. Yang, "Firefly algorithms for multimodal optimization," *Lect. Notes Comput. Sci.*, pp. 169–178, 2009.

[36] X.-S. Yang, *Nature-inspired metaheuristic algorithms*. Luniver Press, 2010.

[37] J. Krause, J. Cordeiro, R. S. Parpinelli, and H. S. A. Lopes, "A Survey of Swarm Algorithms Applied to Discrete Optimization Problems," *Swarm Intell. Bio-Inspired Comput.*, pp. 169–191, 2013.

[38] V. S. Abhayawardhana, I. J. Wassellt, D. Crosby, M. P. Sellars, and M. G. Brown, "Comparison of empirical propagation path loss models for fixed wireless access systems," *IEEE Veh. Technol. Conf.*, vol. 61, no. 1, pp. 73–77, 2005.

[39] N. Atina, M. Razali, M. H. Habaebi, N. Fariza, and B. Zulkurnain, "The Distribution of Path Loss Exponent in 3D Indoor Environment," vol. 12, no. 18, pp. 7154–7161, 2017.

UNIVERSITAS
GADJAH MADA
RESOURCE OPTIMIZATION IN HETEROGENEOUS NETWORKS USING DISCRETE FIREFLY ALGORITHM
xaphakdy, khampaserth, Dr. I Wayan Mustika, ST, M.Eng., Ph.D. ; Dr. Prapto Nugroho, S.T., M.Eng., D.Eng., IPM.
Universitas Gadjah Mada, 2020 | Diunduh dari http://etd.repository.ugm.ac.id/

[40] D. Zhang, S. Mumtaz, and K. S. Huq, "SISO to mmWave massive MIMO," in *mmWave Massive MIMO*, Elsevier Inc., 2017, pp. 19–38.

[41] K. M. Passino, "Biomimicry of Bacterial Foraging for Distributed Optimization and Control," *IEEE Control Syst.*, vol. 22, no. 3, pp. 52–67, 2002.

[42] B. Hern, "A review of the bacterial foraging algorithm in constrained numerical optimization."