

Self-Adaptation in Smartphone Applications: State-of-the-Art Techniques, Challenges, and Future Directions

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Appendix A

Appendix A. General Information about the Selected Studies

No.	Reference	Paper Title	Author Name/s	Year of Publication	Venues and Source of Publication
1.	[15]	“A cognitive-based ego network detection system for mobile social networking”	<ul style="list-style-type: none">• Matteo Mordacchini• Andrea Passarella• Marco Conti	2015	IEEE Conference, 8 th IFIP Wireless and Mobile Networking Conference
2.	[17]	“A Proactive Approach for Context-Aware Self-Adaptive Mobile Applications to Ensure Quality of Service”	<ul style="list-style-type: none">• Md. Shafiuzzaman• Nadia Nahar• Md. Rayhanur Rahman	2015	IEEE Conference, 18 th International Conference on Computer and Information Technology (ICCIT)
3.	[19]	“A Self-Adaptive Multi-Agent System Approach for Collaborative Mobile Learning”	<ul style="list-style-type: none">• Didac Gil de la Iglesia• Juan Felipe Calderon• Danny Weyns• Marcelo Milrad	2015	IEEE Journal, Transactions on Learning Technologies

			<ul style="list-style-type: none"> • Miguel Nussbaum 		
4.	[21]	“Context-Driven Progressive Enhancement of Mobile Web Applications: A Multi criteria Decision-Making Approach”	<ul style="list-style-type: none"> • Heiko Desruelle • Frank Gielen 	2015	IEEE Journal, Computer and Communications Networks and Systems The Computer Journal
5.	[5]	“Enhanced Accident Detection System Using Safety Application for Emergency in Mobile Environment: SafeMe”	<ul style="list-style-type: none"> • Amit Hirawat • Deepshikha Bhargava 	2015	Springer India Conference, 4 th International Conference on Soft Computing for Problem Solving, Advances in Intelligent Systems and Computing
6.	[11]	“S-Aframe: Agent-based Multi-layer Framework with Context-aware Semantic Service for Vehicular Social Networks”	<ul style="list-style-type: none"> • Xiping Hu, • Jidi Zhao, • Boon-Chong Seet, • Victor C. M. Leung, • Terry H. S. Chu, • Henry C. B. Chan 	2015	IEEE Journal, Transactions on Emerging Topics in Computing
7.	[24]	“Self-adaptation of mobile systems driven by the Common Variability Language”	<ul style="list-style-type: none"> • Gustavo G. Pascual, • Mónica Pinto, • Lidia Fuentes 	2015	Elsevier Journal, Future Generation Computer Systems
8.	[4]	“Adaptive Deployment Infrastructure for Android Applications”	<ul style="list-style-type: none"> • Junior Cupe Casquina • Jane D.A. Sandim Eleuterio 	2016	IEEE Conference, 12 th European Dependable Computing Conference

			<ul style="list-style-type: none"> • Cecilia M.F. Rubira 		
9.	[6]	“Fighting Weight Problems and Insulin Resistance with the Metabolic Health Monitor App for Patients in the Setting of Limited Access to Health Care in Rural America”	<ul style="list-style-type: none"> • Zsolt Ori, • Ilona Ori 	2016	IEEE Conference, Global Humanitarian Technology Conference
10.	[26]	“Generic Context Adaptation for Mobile Cloud Computing Environments”	<ul style="list-style-type: none"> • Gabriel Orsini, • Dirk Bade, • Winfried Lamersdorf 	2016	Elsevier Conference, The 13 th International Conference on Mobile Systems and Pervasive Computing
11.	[28]	“MASCOT: Self-adaptive Opportunistic Offloading for Cloud-Enabled Smart Mobile Applications with Probabilistic Graphical Models at Runtime”	<ul style="list-style-type: none"> • Nayyab Zia Naqvi, • Jonas Devlieghere, • Davy Preuveneers, • Yolande Berbers 	2016	IEEE Conference, 49 th Hawaii International Conference on System Sciences
12.	[12]	“On the Importance of Spatial Perception for the Design of Adaptive User Interfaces”	<ul style="list-style-type: none"> • Tilman Deuschel, • Ted Scully 	2016	IEEE Conference, IEEE 10 th International Conference on Self-Adaptive and Self-Organizing Systems
13.	[29]	“Recommending Features of Mobile Applications for Developer”	<ul style="list-style-type: none"> • Hong Yu, • Yahong Lian, • Shuotao Yang, • Linlin Tian, • Xiaowei Zhao 	2016	Springer Conference, International Publishing AG 2016

14.	[31]	“Self-adaptive Step Counting on Smartphones under Unrestricted Stepping Modes”	<ul style="list-style-type: none"> • Zihao Tang, • Yao Guo, • Xiangqun Chen 	2016	IEEE Conference, IEEE 40 th Annual Computer Software and Applications Conference
15.	[13]	“Improving the User Experience using an Intelligent Adaptive User Interface in Mobile Applications”	<ul style="list-style-type: none"> • Saeed Raheel 	2016	IEEE Conference, International Multidisciplinary Conference on Engineering Technology (IMCET)
16.	[2]	“A Self-adaptive Framework for Enhancing Energy Efficiency in Mobile Applications”	<ul style="list-style-type: none"> • Fahimeh Alizadeh Moghaddam, • Mario Simaremare 	2017	IEEE Conference, Sustainable Internet and ICT for Sustainability
17.	[16]	“Cloud Aware: Empowering context-aware self-adaptation for mobile applications”	<ul style="list-style-type: none"> • Gabriel Orsini • Dirk Bade • Winfried Lamersdorf 	2017	Wiley Journal, Trans Emerging Tel Tech
18.	[18]	“Crowd-Based Programming for Reactive Systems”	<ul style="list-style-type: none"> • David Harel, • Idan Heimlich, • Rami Marelly • Assaf Marron 	2017	IEEE/ACM 4 th International Workshop on Crowd Sourcing in Software Engineering (CSI-SE)
19.	[20]	“Dynamic Adaptation and Reconfiguration of Security in Mobile Devices”	<ul style="list-style-type: none"> • Mohamed AMOUD, • Ounsa ROUDIES 	2017	IEEE Conference, International Conference on Cyber Incident Response, Coordination, Containment & Control

20.	[22]	“Using Emotions to Empower the Self-adaptation Capability of Software Services”	<ul style="list-style-type: none"> • Nelly Condori-Fernandez, • Franci Suni Lopez 	2017	IEEE/ACM 2 nd International Workshop on Emotion Awareness in Software Engineering
21.	[1]	“An adaptive smartphone anomaly detection model based on data mining”	<ul style="list-style-type: none"> • Xue Li Hu, • Lian Cheng Zhang • Zhen Xing Wang 	2018	Springer Journal, EURASIP Journal on Wireless Communications and Networking
22.	[23]	“Autonomic Adaptation of Multimedia Content Adhering to Application Mobility”	<ul style="list-style-type: none"> • Francisco Javier Velazquez-Garcia, • Pal Halvorsen, • Hakon Kvale Stensland, • Frank Eliassen 	2018	Springer Conference, IFIP International Federation for Information Processing 2018
23.	[14]	“ProMETheus: An Intelligent Mobile Voice Meeting Minutes System”	<ul style="list-style-type: none"> • Hui Liu, • Xin Wang, • Yuheng Wei, • Wei Shao, • Jonathan Liono, • Flora D. Salim, • Bo Deng, • Junzhao Du 	2018	ACM, Proceedings of the 15 th EAI International Conference on Mobile and Ubiquitous Systems: Computing, Networking and Services
24.	[7]	“Real-time Smartphone application for improving spatial awareness of Hearing Assistive Devices”	<ul style="list-style-type: none"> • Anshuman Ganguly, • Abdullah Küçük, • Issa Panahi 	2018	IEEE Conference, 40 th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC)
25.	[25]	“A Reference Architecture to support the development of mobile applications	<ul style="list-style-type: none"> • Frank Jose Affonso, • William Filisbino Passini, 	2019	Elsevier Journal, Pervasive and Mobile Computing

		based on self-adaptive services”	<ul style="list-style-type: none"> • Elisa Yumi 		
26.	[27]	“CAMEL: A Self-Adaptive Framework for Enriching Context-Aware Middlewares with Machine Learning Capabilities”	<ul style="list-style-type: none"> • Nicola Bicocchi, • Damiano Fontana, • Franco Zambonelli 	2019	Hindawi Journal, Mobile Information Systems
27.	[8]	“Energy Efficient Adaptation Engines for Android Applications”	<ul style="list-style-type: none"> • Angel Canete, • Jose-Miguel Horcas, • Inmaculada Ayala, • LidiaFuentes 	2019	Elsevier Journal, Energy Efficient Adaptation Engines for Android Applications
28.	[9]	“Malware Detection in Android System Based on Change Perception”	<ul style="list-style-type: none"> • Hua-li Zhang, • Hua-yong Yang, • Fan Yang, • Wei Jiang 	2019	Springer Conference, International Conference on Intelligent Computing
29.	[30]	“Mobile User Environment Detection using Deep Learning based Multi-Output Classification”	<ul style="list-style-type: none"> • Illyyne Saffar, • Marie Line Alberi Morel, • Mohanned Amara, • Kamal Deep Singh, • Cesar Viho 	2019	IEEE Conference, 12 th IFIP Wireless and Mobile Networking Conference (WMNC)
30.	[3]	“Self-Adaptation in Mobile Apps: a Systematic Literature Study”	<ul style="list-style-type: none"> • Eoin Martino Grua, • Ivano Malavolta, • Patricia Lago 	2019	IEEE Conference, IEEE/ACM 14 th International Symposium on Software Engineering for Adaptive and Self-Managing Systems

31.	[32]	“Dynamic adaptation of service-based applications: a design for adaptation approach”	<ul style="list-style-type: none"> • Martina De Sanctis, • Antonio Bucchiarone • Annapaola Marconi 	2020	Springer Journal, Journal of Internet Services and Applications
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