

ID	Title	Authors	Venue	Venue Acronym	Venue Type	Year	I1	I2	I3	E1	E2	E3	E4	E5	E6	Included	Notes
S2IRVN	A study of energy-aware implementation techniques: Re	Corral, Luis; Georgiev, Anton B.; Sillitti, Alberto; S	Sustainable Computing: Informatics and Systems	SUSCOM	J	2015	x	x	x							x	Paper proposes Method Reallocation which refers to the placement of pieces of code in different execution scopes within a single target and Method Offloading which refers to the placement of pieces of code in external resources in different scopes (for instance a remote server).
KSR7NJ	A study of the energy consumption of databases and clo	Bani, Béchir; Khomh, Foutse; Guéhéneuc, Yann-C	International Conference on Service-Oriented Computing	ICSOC	C	2016	x	x	x							x	Paper investigates the energy consumption of three different databases, MySQL, PostgreSQL, and MongoDB in combination of cloud patterns. It finds that MySQL is the most energy efficient database regardless of any cloud patterns implemented.
RL4Q2U	An Automated Code Optimizer of Design Patterns for Re	Din, Jamilah; Wei, Ooi Chiew; Jasser, Muhammed	International Journal of Engineering & Technology	IJET	J	2018	x	x	x							x	Paper proposes a tool to automate the optimization of software design patterns.
NEG9DS	Analysis of energy consumption and optimization technic	Corral-García, Javier; Lemus-Prieto, Felipe; Gonz	Electronics	Electronics	J	2019	x	x	x							x	Proposes twenty-five techniques for writing energy-efficient code for Raspberry Pi boards.
8MGR8Z	Anti-patterns and the energy efficiency of Android applic	Morales, Rodrigo; Saborido, Ruben; Khomh, Fout	arXiv preprint arXiv:1610.05711		Not published	2016	x	x	x							x	Note: This paper itself is not peer reviewed. However it is mentioned in it that it is part of another more overarching paper. I will include the peer reviewed, overarching paper over this one. Paper presents a set of anti-patterns and their relation to the energy consumption of an application. They then describe a set of refactorings to eliminate those anti-patterns that result in energy efficient software.
JL65TSV	Architectural Tactics for Energy Efficiency: Review of the	Paradis, Carlos; Kazman, Rick; Tamburri, Damian	Proceedings of the 54th Hawaii International Conference on	HICSS	C	2021	x	x	x							x	Paper presents a review of several efficiency tactics and how they can be implemented in real case scenarios.
XBNH9N	Code-level Optimization for Program Energy Consumptio	Fu, Cuijiao; Qian, Depei; Huang, Tianming; Luan,	COMPUTATION TOOLS 2019 : The Tenth International Con	COMPUTATION TO C		2019	x	x	x							x	Paper proposes eliminating the dead write from code to increase energy efficiency in application software.
WJC7DC	ENERGY CONSUMPTION PATTERNS OF MOBILE APPL NIDAWI, HASAN SAJID ATTA; WEI, KOH TIE		Journal of Theoretical & Applied Information Technology	JATIT	J	2017	x	x	x							x	Paper presents several energy efficiency tactics for smart phone applications, some of them go into improving energy efficiency from the perspective of a software developer at the application level.
5IT56E4	Energy Efficiency Analysis of Code Refactoring Techniqu	Şaniialp, Ibrahim; Öztürk, Muhammed Maruf; Yiğit	Electronics	Electronics	J	2022	x	x	x							x	Paper proposes several source-code refactoring techniques at the application software level.
QRF2VW	Energy efficient data encryption techniques in smartphon	Mujtaba, Ghulam; Tahir, Muhammad; Soomro, Mu	Wireless Personal Communications	Wireless Personal C	J	2019	x	x	x							x	Paper proposes for applicaitons to use specific types of encryption algorithms to reduce energy consumption.
TSQNKE	Energy Efficient Software Development Techniques for C	Alsayyah, Aeshah A.; Ahmed, Shakeel	International Journal of Advanced Trends in Computer Scier	IJATCSE	J	2020	x	x	x							x	Paper proposes to add an additional phase called parameterized development phase to be incorporated along with the traditional Software Development Life cycle.
JRTZZR	Environmental Sustainability Coding Techniques for Clou	Ahmed, Shakeel	International Journal of Advanced Computer Science and A	IJACSA	J	2020	x	x	x							x	Proposes using the Microsoft Visual Studio Code 2017 to profile applications and optimize "hot spots"
EUGXAZ	Exploring evolutionary search strategies to improve appli	Manotas, Irene; Clause, James; Pollock, Lori	International Symposium on Search Based Software Engine	SSBSE	J	2018	x	x	x							x	Proposes using evolutionary search strategies to find combinations of architectural decisions that help with energy consumption.
XX552Z	Green Patterns of User Interface Design: A Guideline for	Nayak, Jitesh; Chandwadkar, Apurva	International Conference on Human-Computer Interaction	HCI	C	2021	x	x	x							x	Proposes energy efficiency tactics for the graphical interface.
BMWTF	How green are cloud patterns?	Abtahizadeh, S. Amirhossein; Khomh, Foutse; Gu	2015 IEEE 34th International Performance Computing and C	IPCCC	C	2015	x	x	x							x	Proposes cloud patterns that can be implemented by developers
LSBAJW	Investigating the effect of design patterns on energy con	Feitosa, Daniel; Alders, Rutger; Ampatzoglou, Apc	Journal of Software: Evolution and Process	Journal of Software: J		2017	x	x	x							x	Presents alternatives to the GoF patterns that offer better performance than the original GoF patterns.
R2FNZS	Investigating the Impact of Code Refactoring Techniques	Şaniialp, Ibrahim; Ozturk, Muhammed Maruf	The International Conference on Artificial Intelligence and A	ICAAME	C	2019	x	x	x							x	Indirectly proposes code patterns that increase energy efficiency
GXRX9F	Investigation for Software Power Consumption of Code F	Park, Jae Jin; Hong, Jang-Eui; Lee, Sang-Ho	SEKE: Software Engineering and Knowledge Engineering	SEKE	C	2014	x	x	x							x	Proposes M. Fowler's refactoring techniques that increase energy efficiency
TKSV4V	Optimising energy consumption of design patterns	Noureddine, Adel; Rajan, Ajitha	2015 IEEE/ACM 37th IEEE International Conference on Sof	ICSE	C	2015	x	x	x							x	Proposes optimizing patterns at the compiler level. They analyze two patterns, Decorator and Observer and record a ~4% - ~25% energy efficiency increase.

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2A3BQV	Smartphones power consumption & energy saving techn	Zaman, Noor; Almusalli, Fatimah Abdulaziz	2017 International Conference on Innovations in Electrical E	ICIEECT	C	2017	x	x	x							x	Reviews one application level technique to improve energy efficiency by controlling the applications hardware and software depending on the battery levels.
HFGU26	Software development lifecycle for energy efficiency: tec	Georgiou, Stefanos; Rizou, Stamatia; Spinellis, Di	ACM Computing Surveys (CSUR)	CSUR	J	2019	x	x	x							x	This paper finds that parallel and approximate programming, source code analyzers, efficient data structures, coding practices, and specific programming languages can significantly increase energy efficiency.
TN6IQC	Tools supporting green computing in Erlang	Nagy, Gergely; Mészáros, Áron Attila; Bozó, István	Proceedings of the 18th ACM SIGPLAN International Works	ERLANG	W	2019	x	x	x							x	Paper proposes refactorings for the Erlang language that may help decrease the energy consumption of Erlang software.
98DNPT	Towards an Energy-Consumption Based Complexity Cla	Höpfner, Hagen; Bunse, Christian	Grundlagen von Datenbanken	GvD Workshop	W	2010	x	x	x							x	Paper proposes substitution of resources (communication to the server vs local execution of calculations) as means of increasing energy efficiency. It also gives a function to determine which substitutions should be made.
YXRURZ	Understanding the impact of cloud patterns on performar	Khomh, Foutse; Abtahizadeh, S. Amirhossein	Journal of Systems and Software	Journal of Systems	J	2018	x	x	x							x	Paper proposes guidelines that developers and software architects can follow during the implementation of a cloud-based application.
U2KEHF	Understanding the impact of object oriented programmin	Maleki, Sepideh; Fu, Cuijiao; Banotra, Arun; Zong	2017 Eighth International Green and Sustainable Computing	IGSC	C	2017	x	x	x							x	Paper proposes to avoid the Decorator code design pattern to increase energy efficiency. The paper also advocates to use the Flyweight design pattern to increase energy efficiency.