

REFERENCES

- [1]. R. Mikalsen, A.P. Roskilly, “A review of free-piston engine history and applications”, *Applied Thermal Engineering*, Volume 27, Issues 14-15, October 2007, Page 2339–2352.
- [2]. Dr. Pragasen Pillay, “Hydrogen economics and alternative fuels”, IEEE Emerging Technology Portal,2006.
- [3]. Donald L Klass, “Biomass for renewable energy and fuels”, *Encyclopedia of Energy*, Elsevier, 2004 Page 193-212.
- [4]. J M D Coey, “Magnetism and magnetic materials,” Cambridge University Press.
- [5]. “Handbook of magnetism and advanced magnetics materials”, John Wiley and Sons, 1999.
- [6]. Edward Furlani, “Permanent magnet and electro mechanical devices”, Academic Press, Elsevier, 2001.
- [7]. Karl J. Strnat, “Modern permanent magnets for applications in electro-technology”, *Proceedings of the IEEE*, Volume 78, Number 6, June 1990, page 923-958.
- [8]. Thomas E. Bearden et al, “The Motionless electromagnetic generator: Extracting energy from a permanent magnet with energy-replenishing from the active vacuum”, Magnetic Energy Limited Huntsville, AL 35801
- [9]. Jonathan E Rucker, “Design and analysis of a permanent magnet generator for naval applications”, Thesis for Master of Science, Massachusetts Institute of Technology, June 2005.

- [10]. Awaja N., Sood, D. K., Vinay T., “Modeling and simulation of a flat spring for use in an electromagnetic micro generator”, Smart Structures, Devices, and Systems II, Proceedings of SPIE, 2005. 5649, page 361-372.
- [11]. Wortham, Charles, “Vehicle with magnetic engine”, US Patent, US 5,219,034, Jun 15th, 1993.
- [12]. Jon Long Qian Tianming, “Renewable energy flush light”, US Patent, US 20070030671, February, 2007
- [13]. Patton, “Ceramic magnet motor”, US Patent, US 5,057,724., October 15, 1991
- [14]. Takara, “Electromagnet piston engine”, US Patent, US 6,049,146, Apr 11th, 2000.
- [15]. Blalock, “Electro-magnetic reciprocating engine” US patent US 4317058 February 23, 1982.
- [16]. Morch, “Power Plant” US Patent US 2,338,005, December 28th 1943.
- [17]. Butler,Kala “Electromagnetic reciprocating engine” US Patent, US 7,557,473, July 7th, 2009.
- [18]. Murry “Electrical auxiliary powered bicycle”, US Patent US 3,894,599 July 15th, 1975.
- [19]. Meador “Electromagnetically powered engine”, US Patent US 5,637,936, June 10th, 1997.
- [20]. Harry Paul “Apparatus and process for generating energy”, US Patent, US 6,954,019. October 11th, 2005.
- [21]. Berling “Linear motor arrangement for a reciprocating pump system” US Patent US 5,833,440, November 10th, 1998.

- [22]. Susliaev et.al. “Electromagnetically powered engine” US Patent, US 57557093, May 26th, 1998.
- [23]. Reynolds “Magnetically actuated engine” US Patent, US 4749893, June 7th, 1988.
- [24]. Mah, “Faraday flash light” US Patent, US 6,729,744 B2, May 4th, 2004.
- [25]. Minato, “Magnetic rotating apparatus”, US Patent, US 5,594,289, 14th January 1997.
- [26]. Mc Carthy, “Energy producing apparatus utilizing magnetic pistons”, US Patent, US 7,330,094, Feb 12th, 2008.
- [27]. Togare,Radhakrishna Shesha Iyengar “Magnetic piston engine”, US Patent, US 7,667,356 B2, Feb 23rd , 2010.
- [28]. Miyada “Electromagnetic piston engine” US Patent US 4,129,795, December 12th, 1978.
- [29]. Edward Magnetic actuator” US Patent US 4,315,197, February 1982.
- [30]. Studer, “Linear magnetic generator” US Patent, US 4,315,197, February 9th, 1982.
- [31]. Gattani M K, “Gate operated repulsive magnetic piston fuel free engine”, Published in IPO Journal, December 31st, 2010.
- [32]. Gattani M K, “Solenoid plate magnetic piston fuel free engine”, published in the IPO Journal, September 23rd, 2011.
- [33]. Gattani M K “Electric current generator” published in the IPO Journal, September 27th, 2013.
- [34]. Elmaleh “Electro-magnetic engine” US Patent, US 7,105,958, September 12th, 2006.

- [35]. Frenette “Method of converting internal combustion engine into electrically driven engine” US Patent, US 6,278,204 B1, August 21st, 2001.
- [36]. Taishoff “Method and apparatus for converting a conventional internal combustion engine into a high speed electric motor and generator” US Patent, US 4,631,455, December 23rd, 1986.
- [37]. Konotchik, “Linear motion electric power generator”, U.S. Patent US 5,818,132, October 6th .
- [38]. Williams C.B. and Yates R.B, “Analysis of a micro- electric generator for microsystems”, Sensors and Actuators A: Physical, 1996. 52 (1- 3): page 8-11.
- [39]. Shearwood C. and Yates R.B., “Development of an electromagnetic micro generator”. Electronics Letters, 1997. 33(22): page 1883-1884.
- [40]. Amirtharajah R. and Chandrakasan A.P., “Self-powered signal processing using vibration-based power generation” Solid-State Circuits, IEEE Journal of, 1998. 33(5): page 687-695.
- [41]. Ching, N. N. H., Wong, H. Y., Li, W. J., Leong, P. H. W., and Wen, Z., “A Laser-Miro machined multi modal resonating power transducer for wireless sensing systems,” Sensors and Actuators, A Vol. 97-98, 2002, page 685-690.
- [42]. El-hami M., Glynne-Jones P., White N.M., Hill M., Beeby S.P., James E., Brown A.D. , and Ross J.N., “Design and fabrication of a new vibration- based electromechanical power generator”, Sensors and Actuators A, 2001. 92: page 335- 342.

- [43]. Glynne-Jones P., Tudor M.J. , Beeby S.P., White N.M., “An electromagnetic, vibration-powered generator for intelligent sensor systems, Sensors and Actuators A , 2004 ,110 , page 344–349.
- [44]. Mizuno and Chetwynd “Investigation of a resonance micro generator”, Journal of Micromechanics and Micro engineering, 2003.
- [45]. Kulah H., and Najafi K., “An electromagnetic micro power generator for low-frequency environmental vibrations”, Micro Electro Mechanical Systems-17th IEEE conference on MEMS. 2004.
- [46]. Koukharenko E. , Beeby S. P. , Tudor M. J.,White N. M., O'Donnell T. , Saha C., Kulkarni S. , Roy S., ”Micro electromechanical systems vibration powered electromagnetic generator for wireless sensor applications”, Microsyst Technol , 2006, 12, page 1071–1077.
- [47]. Pan C.T., Hwang Y.M., Hu H.L., Liu H.C., “Fabrication and analysis of a magnetic self-power micro generator”, Journal of Magnetism and Magnetic Materials, 2006, 304, page 394–396.
- [48]. Wang P.H, Dai X.H., Fang D.M., and Zhao X.L., “Design, fabrication and performance of new vibration-based electromagnetic micro power generator”, Microelectronics Journal, 2007. 38, page 1175-1180.
- [49]. Serre C., Pe rez-Rodr guez A., Fondevilla N., Martincic E., Martínez S., Morante J., Montserrat J., Esteve J.,”Design and implementation of mechanical resonators for optimized inertial electromagnetic micro generators”, Microsyst Technol , 2008, 14,page 653–658.
- [50]. Saha C.R., O'Donnell T., Wang N., McCloskey P., “Electromagnetic generator for harvesting energy from human motion”, Sensors and Actuators A ,2008, 147, page 248–253.

- [51]. Williams C.B. , Shearwood C., Harradine M. A., Mellor P. H. ,Birch T. S., and Yates R. B., “Development of an electromagnetic micro-generator”, IEE Proc. - Circuits Devices Syst., 2001, page 337-342.
- [52]. Sari I., Balkan T., Kulah H., “An electromagnetic micro power generator for wideband environmental vibrations”, Sensors and Actuators , 2008, 145–146, page 405–413.
- [53]. Kulkarni S., Koukharenko E., Torah R., Tudor J., Beeby S., O'Donnell T., Roy S., “Design, fabrication and test of integrated micro-scale vibration- based electromagnetic generator”, Sensors and Actuators A , 2008, 145–146 , page 336– 342.
- [54]. E.Spooner, A.C.Williamson, “Direct coupled, permanent magnet generators for wind turbine applications”, IEEE Proceedings, Electrical Power Applications, Vol. 143, No. 1, January 1996.
- [55]. E. R. Brown, “Megawatt Solid-State Electronics”, DARPA Microsystems Technology Office, 1998.
- [56]. Science Applications International Corporation, Superconducting Generator Study Final Report, December 2002.
- [57]. Wang Fengxiang, Zheng Wenpeng, Zong Ming, Wang Baoguo, “Design consideration of high speed PM generators for micro turbines,” IEEE Transactions, 2002.
- [58]. Mihai Comanescu, Ali Keyhani, Min Dai, “Design and analysis of 42 V permanent magnet generator for automotive applications,” IEEE Transaction of Energy Conversion, vol 18, No.1, 2003.

- [59]. M A Rahman, G R Slemon, “Promising Applications of Neodymium Iron Boron Iron magnets in electrical machines,” IEEE transactions on Magnetics, Vol No. 5, September 1985.
- [60]. Seeger A., Kronmuller H., Rieger H., Trauble H., “Effect of lattice defects on the magnetization curve of ferro magnets”, Applied Physics,35, 1964, 740-748.
- [61]. S Tumanski “Handbook of magnetic measurements” Warsaw University of Technology, Poland CRC Press, 2011.
- [62]. D. Pavlik, V.K. Garg, J R Repp, J.Weiss, “A finite element technique for calculating the magnet size and induction for permanent magnet machines,” IEEE Transaction of Energy Converion, Vol 3, No 1, March 1988.
- [63]. J R Henderson, Jr & T J E miller, “Design of brushless permanent magnet motors,” Magna Physics Publishing and Clarendon Press, 1994.
- [64]. Dr Duane Hanselman, “Brushless permanent magnet motor design,” the writer’s collective, 2003.
- [65]. Mark Rippy, “An overview guide for the selection of lamination materials,” Proto Laminations, Inc, 2004.
- [66]. Do Hyun Kang, Paul Curiac, Yeon Ho Jung, Soo Jin Jung, “Prospects for magnetization of large PM rotors: Conclusions from a development Case Study,” IEEE Transaction of Energy Conversion, Vol 18, No 3, September 2003.
- [67]. Tumanski S, “Scanning of magnetic field as a method of investigations of the structure of magnetic materials,” Prezegl Elektrotech, 83(1),2007, page 108-112.

- [68]. George P. Gogue & Joseph J. Stupak, Jr., "Theory & practice of electromagnetic design of DC motors & actuators", G2 Consulting, Beaverton, OR 97007
- [69]. Moskowitz L.R., "Permanent magnet design and application handbook, 2nd edition. Malabar, 1995.
- [70]. Strnat K.J., "The recent development of permanent magnet materials containing rare earth metals", IEEE Transaction on magnetics, 1970, page 182-190.
- [71]. Beeby S. P., Tudor M. J., Koukharenko E., White N. M., O'Donnell T., Saha C., Kulkarni S. and Roy S., "Micro machined silicon generator for harvesting power from vibration", in Proc. Transducers, Seoul, Korea, 2005.
- [72]. Strnat K.J., Permanent magnets based on 4f-3d compounds. IEEE Transaction on magnetics, 1987. 23, page 2094-2099.
- [73]. "Modeling of permanent magnets and ferro magnet Materials" Sensors- Experts Associations.
- [74]. "Standard specifications for permanent magnet materials" by magnetic material producers association, 8-South Michigan Avenue, Chicago, Illinois
- [75]. Haus, Hermann A., and James R. Melcher. "Electromagnetic Fields and Energy". Englewood Cliffs, NJ: Prentice-Hall, 1989. ISBN: 9780132490207.
- [76]. Kenneth L. Kaiser, "Electromagnetic Shielding" CRC Press.

- [77]. Mager A, “Magnetic shielding efficiencies of cylindrical shells with axis parallel to the field” Journal of applied physics, Vol 39, No 3 February 1968.
- [78]. Mager A, “Magnetic shields” IEEE transactions on magnetics, Vol MAG 6, No 1, march 1970.
- [79]. ASTM Standard guide for magnetic particle testing.
- [80]. Unal E., Gokcen A., Kutlu Y, “Effective Electromagnetic Shielding, IEEE Microwave magazine”, 1527 3342, 2006”, Dept. of Electric Power Engineering, FEI TU of Košice, Slovak Republic, page 48 – 54.
- [81]. O. Aglen, A. Andersson, “Thermal Analysis of high speed generator,” IEEE Transaction 2003.
- [82]. Jason Pepi & Dr Peter Mongeau, “ High Power density permanent magnet generator,” DRS Electric Power Technologies, Inc. 2004.
- [83]. S. M. Abu Sharkh, M R Harris, N Taghizaden Irenji, “Calculation of rotor eddy-current loss in high speed PM alternators,” IEEE conference publication No 444, 1997.
- [84]. Dr Timothy McCoy, “Contemporary Naval Electrical Power Systems,” Course 13.412 Lecture, Massachusetts Institute of Technology, Fall 2013.
- [85]. James L Kirtley, “Electric Machines, Class Notes 1,” Course 6.685, Massachusetts Institute of Technology, 2003.
- [86]. Der-Ming Ma, Jaw-Kuen Shiau, “The design of eddy-current magnet brakes”, Transactions of the Canadian Society for Mechanical Engineering, Vol. 35, No. 1, 2011.
- [87]. Thomas C Gillmer, Bruce Johnson, “Introduction to naval architecture”, Naval Institute Press, December 1982.

- [88]. Irving H. Shames, James M Pitarresi, "Introduction of solid mechanics," 3rd Edition, Prentice Hall, 2000.
- [89]. Michael F. Ashby, David R H Jones, "Engineering Materials," Pergamon press, 1991.

Important Website Links

www.uspto.gov

www.wipo.int/portal/en/index.html

www.ipindia.nic.in

www.home.san.rr.com/techdata/materialsis.html

www.grc.nasa.gov

www.ieee.org/go/emergingtech

www.eddy-current.com

www.sensros-experts.com

www.consult-g2.com/course/chapter7/chapter.html

www.specialmetal.com.

11. Website for magnetic compound engineering Inc.

www.electronicstalk.com

www.uspto.gov/patent

<http://jnaudin.free.fr/meg/megpaper.pdf>

www.ansys.com

www.ptc.com