

THE BRIEF REVIEW ON THE ROBOT IN THE ACTION

Amit Kumar*

*Faculty of Engineering,

Teerthanker Mahaveer University,

Moradabad, Uttar Pradesh, INDIA

Email id: amit.engineering@tmu.ac.in

DOI: 10.5958/2249-7315.2021.00255.0

ABSTRACT

The term "animatronics" refers to a subfield of mechatronics that combines mechanical and electrical concepts. Animatronics has grown increasingly popular, although it was formerly known as a robotics curriculum. Muscles, limbs, and a cell composed of hard and soft polymers are used to make robots that function like humans. The article depicts an experiment using an animation hand, which is nothing more than a dummy human hand that responds to commands provided by humans. The project is made up of a controller, a sensor, and a motor, all of which are controlled and operated wirelessly thanks to the Wi-Fi module connected to this project, which allows the hand to function without the need for a cable connection. The primary goal of this project is to put it to use in a variety of settings, such as hospitals, military bases, and factories, in order to minimize human participation and make labor more efficient.

KEYWORDS: *Animatronics, Mechatronics, Robot, Universal Serial Bus (USB), Wireless Fidelity (Wi-Fi).*

REFERENCES:

1. Bicchi A, Kumar V. Robotic grasping and contact: A review. Proceedings-IEEE Int Conf Robot Autom. 2000;
2. Kumar G, Jayanand, Perween Q, Ansari R, Rai DV. Neuroprotective effects of rutin against hydrogen peroxide induced oxidative stress in cerebral glioma cell line. Int J Pharm Sci Rev Res. 2014;
3. Bhardwaj S, Singhal N, Gupta N. Adaptive neurofuzzy system for brain tumor. In: Proceedings of the International Conference on Innovative Applications of Computational Intelligence on Power, Energy and Controls with Their Impact on Humanity, CIPECH 2014. 2014.
4. \Kumar A, Jain RK, Yadav P, Chakraborty RN, Singh BK, Nayak BK. Effect of gamma irradiation on the etching properties of Lexan and Makrofol-DE polycarbonate plastics. J Radioanal Nucl Chem. 2013;
5. Jain RK, Kumar A, Singh BK. Track etch parameters and annealing kinetics assessment of protons of low energy in CR-39 detector. Nucl Instruments Methods Phys Res Sect B Beam Interact with Mater Atoms. 2012;
6. Moorthy K, Munz Y, Dosis A, Hernandez J, Martin S, Bello F, et al. Dexterity enhancement with robotic surgery. Surg Endosc Other Interv Tech. 2004;
7. Kumar D, Singh R. Anticataract activity of Acorus calamus Linn. against hydrogen peroxide induced cataractogenesis in Goat eyes. Int J Pharm Sci Rev Res. 2011;

8. Rihan A, Quaisarperween, Gaurav K, Jayanand, Durg VR. Effect of butylated hydroxyanisole on hydrogen peroxide induced oxidative stress on cerebral glioma cell line. *Asian J Pharm Clin Res.* 2014;
9. Sahu PP, Singh M, Baishya A. A novel versatile precision full-wave rectifier. *IEEE Trans Instrum Meas.* 2010;
10. Danahy E, Wang E, Brockman J, Carberry A, Shapiro B, Rogers CB. LEGO-based robotics in higher education: 15 years of student creativity. *Int J Adv Robot Syst.* 2014;
11. Sharma K, Goswami L. RFID based Smart Railway Pantograph Control in a Different Phase of Power Line. In: *Proceedings of the 2nd International Conference on Inventive Research in Computing Applications, ICIRCA 2020.* 2020.
12. Sharma R, Chander R. Market proxies at BSE and weak form efficiency. *Indian J Financ.* 2011;
13. Selvaraj M, Assiri MA, Singh H, Appaturi JN, Subrahmanyam C, Ha CS. ZnAlMCM-41: a very ecofriendly and reusable solid acid catalyst for the highly selective synthesis of 1,3-dioxanes by the Prins cyclization of olefins. *Dalt Trans.* 2021;
14. Bargar WL, Parise CA, Hankins A, Marlen NA, Campanelli V, Netravali NA. Fourteen Year Follow-Up of Randomized Clinical Trials of Active Robotic-Assisted Total Hip Arthroplasty. *J Arthroplasty.* 2018;
15. Kumar L, Thakur I, Verma A, Bhatia BS, Mangat CK. Degradation and Decolourization of Methyl Orange Dye Using Fe-TiO₂ Hybrid Technology (Photo-Fenton and Photocatalysis) in Fixed-Mode. In: *Lecture Notes in Civil Engineering.* 2021.
16. Kaushal G, Singh H, Prakash S. High-temperature erosion-corrosion performance of high-velocity oxy-fuel sprayed Ni-20 Cr coating in actual boiler environment. *Metall Mater Trans A Phys Metall Mater Sci.* 2011;
17. Talwar R, Chatterjee AK. Estimation of power dissipation of a 4H-SiC schottky barrier diode with a linearly graded doping profile in the drift region. *Maejo Int J Sci Technol.* 2009;
18. Sheikh RQ, Yadav V, Kumar A. Stabilization of red soil used as a sub-base material. *Int J Sci Technol Res.* 2020;
19. Haddadin S, Laue T, Frese U, Wolf S, Albu-Schäffer A, Hirzinger G. Kick it with elasticity: Safety and performance in human-robot soccer. *Rob Auton Syst.* 2009;
20. International Federation of Robotics. Executive Summary - World Robotics (Industrial & Service Robots) 2017. *World Robot Rep - Exec Summ.* 2017;
21. All you want to know about Animatronic Hand.
22. Gupta A, Jain R, Bang D, Kori J. Wireless animatronic arm. In: *IET Conference Publications.* 2016.
23. Saroliya A, Mishra U, Rana A. Performance Evaluation and Statistical Analysis of AUR-Chord Algorithm with Default Working of Structured P2P Overlay Network. In: *Advances in Intelligent Systems and Computing.* 2018.
24. Sharma RK, Sharma J, Rai D V., Zafar M. Cod reduction from industrial wastewater using thermal liquid-phase oxidation technique. *Int J Chem Sci.* 2013;
25. Chandel SK, Goyal R, Singla S. Utilization of construction waste as partial replacement of aggregates in cement concrete. *Int J Innov Technol Explor Eng.* 2019;

26. Guerrero-Rincon C, Uribe-Quevedo A, Leon-Rodriguez H, Park JO. Hand-based tracking animatronics interaction. In: 2013 44th International Symposium on Robotics, ISR 2013. 2013.
27. Jog S, Dwivedi A, Ashtankar S, Gautam G. “ Animatronic Hand Using Wireless Module .” 2016;1529–31.