PERSONAL INFORMATION

Chandan Kumar

Kishangarh, 305 802, Ajmer, Rajasthan

+91 8896677605 Date of Birth- Sept. 07, 1988

ckumar.rs.bme13@iitbhu.ac.in , ckclakhanji009@gmail.com

Present Position: Coordinator and Assistant Professor, Department of Biomedical engineering, Central university of Rajasthan

WORK EXPERIENCE

04/05/2019–06/11/2019

Assistant Professor

Vignan university, Department of Electronics, Guntur, India

Subjects taken: Biomedical Instrumentation

03/12/2019–21/11/2022

Assistant Professor Grade-I

Vellore Institute of Technology, Jointly in SEEE and SBE Bhopal campus, Astha, India

Subjects taken: Electric Circuits & systems, Digital electronics, Control engineering, Biomedical Instrumentation, Medical devices and implants, Measurement & Instrumentation and environmental studies.

23/11/2022- Till Now

Coordinator and Assistant Professor

Biomedical engineering, Central University of Rajasthan

Subjects taken: Biomechanics, Biosensors, Biomedical Instrumentation, Medical devices and implants, Measurement & Instrumentation, Digital electronics, Analog electronics and workshop practices

EDUCATION AND TRAINING

June 2006– 2010

Bachelor of Engineering

70.81%

Institute of Technology and Management, Gwalior, India

Electronics & Instrumentation

July 2011– 2013

Masters of Technology

CGPA 7.18

National Institute of Technology, Rourkela (India)

Biomedical Engineering

July 2013–2018

Ph.D. in Piezoelectric Energy Harvesting

Indian Institute of Technology, BHU, Varanasi, India

Ph.D. Thesis

Energy Harvesting from Human motion for Biomedical Applications

The thesis entitled “Energy harvesting from human motion for biomedical applications” focuses on the complete synthesis, characterization and device preparation of Piezoelectric self-powered generators which can generate voltage and current by using various body motion.

START-UPS EXPERIENCE

Mentor of Acupace Technologies Pvt. Ltd.: a start-up India initiative (DIPP no. 42931). Mentor its R & D. This we Started with my PhD supervisor and research students under Atal Incubation centre at IIT(BHU), Varanasi,

Co-founder of Grabbit media Pvt. Ltd.: a stratup india initiative (DIPP no. 13479). http://www.grabbitmedia.in/. A digital marketing platform.

RESEARCH ARTICLES

Publications

1. Chandan Kumar, Anupama Gaur, Shivam Tiwari, sanjay kumar Rai, Pralay Maiti “Bio-waste polymer hybrid as induced piezoelectric material with high energy harvesting efficiency” Elesevier (DOI 10.1016/j.coco.2018.11.004)
2. Chandan Kumar, Anupama Gaur, sanjay kumar Rai, Pralay Maiti "Piezo devices using poly (vinylidene fluoride)/reduced graphene oxide hybrid for energy harvesting" Elesevier; (DOI 10.1016/j.nanoso.2017.10.006)
3. Shivam Tiwari, Anupama Gaur, Chandan Kumar, Pralay maiti “Enhanced piezoelectric response in nanoclay induced electrospun PVDF nanofibers for energy harvesting”. Energy. (DOI 10.1016/j.energy.2019.01.043)
4. Anupama Gaur, Chandan Kumar, Shivam Tiwari, Pralay maiti “Efficient Energy Harvesting Using Processed Poly (vinylidene fluoride) Nanogenerator. ACS; (DOI 10.1021/acsaem.8b00483)
5. Anupama Gaur, Chandan Kumar, Rahul shukla, Pralay maiti " Induced Piezoelectricity in Poly (vinylidene fluoride) Hybrid as Efficient Energy Harvester" Wiley; (DOI 10.1002/slct.201701780)
6. Anupama Gaur, Chandan Kumar, Shivam Tiwari, Pralay maiti “ Bio-waste orange Peel and Polymer Hybrid for Efficient Energy Harvesting”.(DOI 10.1016/j.egyr.2020.02.020)
7. Anupama Gaur, Chandan Kumar, Shivam Tiwari, Pralay maiti “ Flexible, Lead-Free Nanogenerators Using Poly (vinylidene fluoride) Nanocomposites” (DOI 10.1021/acs.energyfuels.0c01143)
8. Anupama Gaur, Shivam Tiwari, Chandan Kumar, Pralay maiti. “ Polymer Biowaste Hybrid for Enhanced Piezoelectric Energy Harvesting “(DOI 10.1021/acsaelm.0c00197)
9. Shivam Tiwari, Anupama Gaur, Chandan Kumar, Pralay maiti “ionic liquid based electrospun polymer nanohybrid for energy hybrid. (DOI 10.1021/acsaelm.1c00307)
10. Chandan kumar, Amit biswas. “Surface modification of Ti-6Al-4V by electrochemical oxidation,” Journal of Biological Engineering Research and Review, 2016; 3(2): 35-39
11. Payal Gupta, Purusottam Mishra, Nishchay Verma, Jinan Alhariry, Chandan Kumar, Ramasare Prasad, Krishna Mohan Poluri. “Assessing the eradication potential of fungal biofilms using acacia gum/PVA nanofibers functionalized with geraniol-β cyclodextrin inclusion complex” (DOI 10.1016/j.jddst.2023.105186)

Conferences and Workshops

Oral presentation on “Energy Harvesting from Polyvinylidene Fluoride /reduced Graphene Oxide (PVDF/rGO) Composites for Biomedical applications” International Symposium on Functional materials: Energy and Biomedical applications (ISFM-2018), Chandigarh, India, April 2018.

Presented poster on “Self-powered nanogenerators from bio-waste Polymer hybrids” in SPSI-MACRO, IISER, Pune, 2018.

Presented poster on Energy Harvesting from Polyvinylidene Fluoride /reduced Graphene Oxide (PVDF/rGO) Composites for Biomedical applications in 10th APA, New Delhi, India, 2018

Attended 18th International Workshop on Physics of Semiconductor Devices (IWPSD-2015) held at IISc Bangalore, India, 2015.

Participated in 6-day Education program on “Electron Microscopy & Microanalysis of materials” held at IIT-BHU, Varanasi, India, 2018

Presented a Paper in the National Conference on Wireless Communication & VLSI design supported by IEEE MP Subsection at Gwalior, India in 2010.

Participated in 6-day Education program on “Electron Microscopy & Microanalysis of materials” held at IIT-BHU, Varanasi, India, 2018.

22 Days hands on training programme on Hardware & Networking by IT & training centre, Gwalior, MP, India: 21 March to 12 April 2007.

BOOKS AND BOOK CHAPTERS

Book on Energy harvesting trends for low power compact electronic devices
Anveshkumar Nella, Anirban Bhowmick, Chandan Kumar, Maheswar Rajagopal, Published on 29.09.2023 by Springer Nature

Book Chapter “ENERGY HARVESTING TECHNIQUES AND TRENDS IN ELECTRONIC APPLICATIONS “
Page no. 205-220, Energy harvesting trends for low power compact electronic devices, Springer Nature

PATENTS

Nanohybrid With high energy harvesting efficiency, Application no. 201811018838, (**Granted)**
A Bio-waste Polymer Hybrid with High Energy Harvesting Efficiency, Application no. 201811016816 (Published)
A Bio-piezoelectric Device and a Method of Preparation Thereof, Application no. 201911013972. (Published)

FELLOWSHIPS

TA (Teaching Assistantship) as Fellowship from July 2013 to July 2018 by MHRD, Govt. Of India in PhD.

Fellowship by MHRD (Ministry of Human Resource and Development, New Delhi, India) From June 2011 to June 2013 in MTech.

I do hereby declare that all the information stated above is true and authentic to the best of my knowledge.

Dr. Chandan Kumar
Coordinator, BME
Assistant Professor
Central University of Rajasthan