

Curriculum Vitae

Dr. Anil Nivrati Ghadge
Assistant Professor
Department of Civil Engineering
Sardar Patel college of Engineering,
Andheri (W), Mumbai
Email: a_ghadge@spce.ac.in



Educational Background (Graduation onwards):

- B.E. (Civil Engineering) from Dr. B.A. Marathwada University Aurangabad, in 1997.
- M.E. (Construction management), Mumbai University, in 2008.
- PhD from IIT Kharagpur, West Bengal (2016).

Professional experience:

- Worked as **Quality Assurance Engineer** in M/S B.G. Shirke Construction Technology Ltd., Pune (1997-2004).
- Presently working as ‘**Assistant Professor**’ in Civil Engineering Department at Sardar Patel College of Engineering, Andheri, Mumbai (2004 –till today).

Member of professional bodies:

- Life member of ISTE.
- Life member of IGS-Mumbai chapter.

Achievements/Awards received:

- Awarded with second merit ranker certificate in ME Civil for the year 2006-2007 from Sardar Patel college of Engineering.
- Awarded with certificate of appreciation for very good academic performance from Sardar Patel college of Engineering, for years 2006-2008.

Research area: Wastewater treatment using Microbial fuel cell

Major findings:

Demonstrated successful application of separator electrode prepared using conductive carbon ink on ceramic material to make single chambered MFC. Developed single chambered MFC (26 litre capacity) and dual chambered (45 L capacity), largest reported so far in literature. These MFCs demonstrated higher power output with lower internal resistance, at reduced capital and operating cost, simplicity in fabrication and longevity gives new direction to wastewater treatment along with energy recovery. Developed low cost ceramic separators using cation exchangers such as montmoillonite/ kaolinite to enhance MFCs performance.

Publication summary: No. of citations = 449, H-index- 09, i-10 Index-09

Year	National journal	International journals	National conferences	International conferences
2008-2011	01	00	01	04
2011-2017	03	11	11	15
2017-2020	04	04	08	05
Sub-total	08	15	20	24
	Total	67		



Dr. A. N. Ghadge

Sardar Patel College of Engineering, Mumbai
Verified email at spce.ac.in

Construction management Energy and Environment

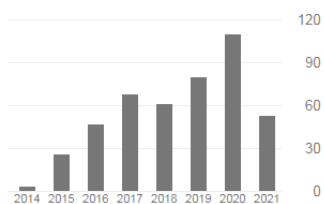
[FOLLOW](#)

[GET MY OWN PROFILE](#)

TITLE	CITED BY	YEAR
Comparison of oxygen and hypochlorite as cathodic electron acceptor in microbial fuel cells DA Jadhav, AN Ghadge, D Mondal, MM Ghangrekar Bioresource technology 154, 330-335	80	2014
Development of low cost ceramic separator using mineral cation exchanger to enhance performance of microbial fuel cells AN Ghadge, MM Ghangrekar Electrochimica Acta 166, 320-328	78	2015
Performance of low cost scalable air-cathode microbial fuel cell made from clayware separator using multiple electrodes AN Ghadge, MM Ghangrekar Bioresource technology 182, 373-377	66	2015
Simultaneous organic matter removal and disinfection of wastewater with enhanced power generation in microbial fuel cell DA Jadhav, AN Ghadge, MM Ghangrekar Bioresource technology 163, 328-334	50	2014
Enhancing waste activated sludge digestion and power production using hypochlorite as catholyte in clayware microbial fuel cell AN Ghadge, DA Jadhav, H Pradhan, MM Ghangrekar	47	2015

Cited by

	All	Since 2016
Citations	449	419
h-index	9	9
i10-index	9	9



Public access

[VIEW ALL](#)

6 articles

not available

2 articles

available

Patent: Indian patent entitled “Earthen material based cathode separator assembly for scalable bio-electrochemical system” (805/KOL/2013 dated 05/07/2013) has been **published on 09/01/2015 and awarded in October 2020.**

Book Chapter:

(1) Ghangrekar M.M., **Ghadge A.N.**, 2013. Scaling-up of Microbial Fuel Cell Using Clay Membrane Separator and Non-catalyzed Electrode Materials, in: Singh, R.R., Pandey, A., Larroche, C. (Eds.), *Advances in industrial biotechnology*, I K International Publishing House, New Delhi, India, pp. 45-57.

(2) Chatterjee, P., Pandit, S., **Ghadge, A. N.**, & Ghangrekar, M. M. (2013). PERFORMANCE COMPARISON OF AIR-BREATHING CATHODE AND AQUEOUS CATHODE EARTHEN POT MICROBIAL FUEL CELL, *Recent Advances in Bioenergy Research*, 356.

Journal publications

1. **Ghadge, A. N.**, Keith S., & Ghangrekar, M. M. (2016). Maximum anode chamber volume and minimum anode area for supporting electrogenesis in microbial fuel cells treating wastewater, *Journal of Renewable and Sustainable Energy* 8 (4) 44032.
2. **Ghadge, A. N.**, Jadhav, D. A., & Ghangrekar, M. M. (2016). Wastewater treatment in pilot-scale microbial fuel cell using multielectrode assembly with ceramic separator suitable for field applications. *Environmental Progress & Sustainable Energy* (DOI: 10.1002/ep.12403).
3. **Ghadge, A. N.**, & Ghangrekar, M. M. (2015). Performance of low cost scalable air–cathode microbial fuel cell made from clayware separator using multiple electrodes. *Bioresource Technology*, 182, 373-377. (Impact Factor- 5.172)
4. **Ghadge, A. N.**, Jadhav, D. A., Pradhan, H., & Ghangrekar, M. M. (2015). Enhancing waste activated sludge digestion and power production using hypochlorite as catholyte in clayware microbial fuel cell. *Bioresource Technology*, 182, 225-231. (Impact Factor- 5.172)
5. **Ghadge, A. N.**, & Ghangrekar, M. M. (2015). Development of low cost ceramic separator using mineral cation exchanger to enhance performance of microbial fuel cells. *Electrochimica Acta*, 166, 320-328. (Impact Factor- 5.172).
6. Jadhav, D. A., **Ghadge, A. N.**, & Ghangrekar, M. M. (2015). Enhancing the power generation in microbial fuel cells with effective utilization of goethite recovered from mining mud as anodic catalyst. *Bioresource technology*, 191, 110-116. (Impact Factor- 5.172)
7. **Ghadge, A. N.**, Sreemannarayana, M., Duteanu, N., & Ghangrekar, M. M. (2014). Influence of ceramic separator’s characteristics on microbial fuel cell performance. *Journal of Electrochemical Science and Engineering*, 4(4), 315-326.
8. Jadhav, D. A., **Ghadge, A. N.**, Mondal, D., & Ghangrekar, M. M. (2014). Comparison of oxygen and hypochlorite as cathodic electron acceptor in microbial fuel cells. *Bioresource Technology*, 154, 330-335. (Impact Factor- 5.172)
9. Jadhav, D. A., **Ghadge, A. N.**, & Ghangrekar, M. M. (2014). Simultaneous organic matter removal and disinfection of wastewater with enhanced power generation in microbial fuel

cell. *Bioresource technology*, 163, 328-334. **(Impact Factor- 5.172)**

10. **Ghadge, A.N.**, Ghangrekar, M. M., Pandit, S., & Das, D. (2014). Performance of air cathode earthen pot microbial fuel cell for simultaneous wastewater treatment with bioelectricity generation. *International Journal of Environmental Technology and Management*, 17(2), 143-153.
11. **Ghadge, A. N.**, Pradhan, H., Prasad, S., & Ghangrekar, M. M. (2013, May). Enhancing Activity of Electrogenic Bacteria in Microbial Fuel Cell by 2-Bromoethanesulphonate Dosing. *International Journal of Engineering Research and Technology*, 2(5), 1086-1091.

Conference publications

1. **Ghadge, A. N.**, Jadhav D. A., Ghangrekar, M. M. (2015). Application of ceramic separator enriched with exchangeable cations for single chamber microbial fuel cells. International conference on Ceramic and Advanced materials for Energy and Environment (*CAMEE2015*), organized by Indian Ceramic Society in association with Indian Institute of Science (IISC) at Bengaluru, Karnataka, India, December 15-17, 2015.
2. **Ghadge, A. N.**, Jadhav D. A., Pradhan, Harapriya, Ghangrekar, M. M. (2014). Sewage treatment plant sludge digestion and electricity generation in earthenware microbial fuel cell. International conference on Environment and Energy (ICEE-2014) Organized by JNTU, Hyderabad, India, December 15-17, 2014.
3. **Ghadge, A. N.**, Ghangrekar, M.M. (2014). Performance of Low Cost Scalable Air- cathode Microbial Fuel Cell Made from Ceramic Cylinder. Accepted for poster Presentation in the *Leading Edge Technology 2014 Conference*, Organized by IWA, Abu Dhabi, UAE, 26-30 May 2014.
4. **Ghadge, A. N.**, Ghangrekar, M.M. (2013). Performance of Scalable Microbial Fuel Cell Using Multi-Anode/Cathode System with Ceramic Separator for Real-World Applications. *10th National Conference on Solid State Ionics (NCSSI-2013)*, IIT Kharagpur, India, 22-24 Dec. 2013.
5. Ghangrekar, M.M., **Ghadge, A.N** (2013). Optimizing anodic chamber volume and power density for scaling up microbial fuel cell. *3rd National Conference on Recent Advances in Bio-Energy Research at SSS-NIRE, Kapurthala*, 22-24 November 2013.
6. **Ghadge, A. N.**, Rajesh P.P., Pritha Chatterjee, & Ghangrekar, M. M. (2013). Scaling up a Microbial Fuel Cell Having an Air-Breathing Cathode and Multiple Electrodes. *International Congress on Materials and Renewable Energy (MRE 2013)*, Athens, Greece, 1-3 July 2013.
7. **Ghadge, A. N.**, Ghangrekar, M.M. (2013). Effect of non-catalyzed electrode materials on low cost scalable microbial fuel cell performance. *International Symposium on New Horizons in Bioenergy Research, IIT Kharagpur, India*, January 14 – 16, 2013.
8. Ghangrekar M.M., **Ghadge, A. N.** (2012). Scaling up of microbial fuel cell using clay membrane separator and non-catalyzed electrode materials. International Conference on Industrial Biotechnology (ICIB-2012), organized by Punjabi university, Patiala, India, November 21-23, 2012.
9. **Ghadge, A. N.**, Pandit, Soumya., Das, Debabrata., Ghangrekar, M.M.(2013). Performance of air cathode earthen pot MFC for simultaneous wastewater treatment with bioelectricity generation. *1st international workshop on waste to energy organized by NEERI, Mumbai, India*, August 24-25, 2012.

10. Jadhav D.A., Pandit S., **Ghadge A. N.**, Das D., Ghangrekar M. M. (2013). Performance comparison between mixed and pure cultures in air cathode earthen pot microbial fuel cells. *10th National Conference on Solid State Ionics (NCSSI-2013)*, IIT Kharagpur, India, 22-24 Dec. 2013.
11. Chatterjee, P., Pandit, S., **Ghadge, A. N.**, Ghangrekar, M.M. (2013). Effect of binder loading on performance of air-cathode earthen pot microbial fuel cell. International Symposium on New Horizons in Bioenergy Research, IIT Kharagpur, India, January 14 – 16, 2013.
12. **Ghadge, A. N.**, Prasad, Sriranjani , Pradhan, Harapriya, Ghangrekar, M.M.(2012). Enhancing activity of electrogenic bacteria in microbial fuel cell by BES dosing. International Conference on Advances in Biological Hydrogen Production and Applications (ICABHPA-2012) Organized by JNTU, Hyderabad, India, December 14-15, 2012.
13. Chatterjee, P., Pandit, S., **Ghadge, A. N.**, Ghangrekar, M.M. (2012). Performance comparison of air-breathing cathode and aqueous cathode earthen pot microbial fuel cell, National Conference on Recent Advances in Bio-energy Research, Organized by Sardar Swaran Singh National Institute of Research, Kapurthala, Punjab,India, December 7-8, 2012.

Publications from ME construction Managements

National Journals:

1. Poonam Raikar and **A.N.Ghadge (2016)**. Analyzing the critical factors influencing the time overrun and cost overrun in construction project, *International Journal of Engineering Research (IJER)*, 5(1), 21-25.
2. Shekhar Jadhav and **A.N.Ghadge**, (2016). Application of Building Information modeling in construction projects – a critical review, *International Journal of Engineering Research (IJER)*, 5(1), 26-31.
3. Sourabh Borole and **A.N.Ghadge**, (2016). Comparative study of conventional and modern waterproofing techniques, *International Journal of Engineering Research (IJER)*, 5(1), 32-36.
4. **A.N.Ghadge**, .P.V.Parameswaran, and .P.H.Sawant (2008). Performance Evaluation of Materials Management Process in Construction Project, Journal of Construction Management NICMAR-Pune.

National/International conferences:

1. **A.N.Ghadge** and Ashutosh Mittal (2017). **Investigating the Factors Influencing Delay in Infrastructure Projects**, International Conference on Advances in Civil and Environmental Engineering (*ICACEE-17*), Organized by Late G. N. Sapkal College of Engineering, Nashik, 10th- 11th February 2017 (**Accepted**).
2. **A.N.Ghadge** and Harshal Sonare (2017). **Assessment of Risk and Hazards of construction activities in Residential Projects**, International Conference on Advances

in Civil and Environmental Engineering (*ICACEE-17*), Organized by Late G. N. Sapkal College of Engineering, Nashik, 10th- 11th February 2017 (**Accepted**).

3. **A.N.Ghadge** and Saurabh Jain (2017). **Factors Affecting Labour Productivity in High Rise Building Construction Projects**, International Conference on Advances in Civil and Environmental Engineering (*ICACEE-17*), Organized by Late G. N. Sapkal College of Engineering, Nashik, 10th- 11th February 2017 (**Accepted**).
4. **A.N.Ghadge** and Rishi Pathak (2017). **Evaluating the Effectiveness of Material Management System in Residential Projects**, International Conference on Advances in Civil and Environmental Engineering (*ICACEE-17*), Organized by Late G. N. Sapkal College of Engineering, Nashik, 10th- 11th February 2017 (**Accepted**).
5. **A.N.Ghadge** and Rajesh G. Vagal, (2016). **Analyzing the Factors Influencing Deterioration in Residential Buildings-A Case Study in Mumbai**, International conference on Advances in Concrete Technology, Materials and Construction Practices (*CTMC- 2016*), organized by Goa Engineering College, Farmagudi-Goa in collaboration with Government Polytechnic, Bicholim Goa and University of Bath, UK, 22nd -24th June 2016.
6. Arpit B. Chaudhari and **A.N.Ghadge**, (2016). **Planning and Designing of Economical Water Distribution System**, *International Conference on Advances in Construction Technology and Management*, organized by Visvesvaraya National Institute of Technology (VNIT) Nagpur, Maharashtra, India, 19-20 th February 2016.
7. Poonam Raikar and **A.N.Ghadge**, (2016). Analyzing the critical factors influencing the time overrun and cost overrun in construction project, 2nd National Conference on Innovations in Civil Engineering (NCICE-2016), organized by Government college of Engineering Karad, Maharashtra, India, 08-09 January, 2016.
8. Shekhar Jadhav and **A.N.Ghadge**, (2016). Application of Building Information modeling in construction projects – a critical review, 2nd National Conference on Innovations in Civil Engineering (NCICE-2016), organized by Government college of Engineering Karad, Maharashtra, India, 08-09 January, 2016.
9. Sourabh Borole and **A.N.Ghadge**, (2016). Comparative study of conventional and modern waterproofing techniques 2nd National Conference on Innovations in Civil Engineering (NCICE-2016), organized by Government college of Engineering Karad, Maharashtra, India, 08-09 January, 2016.
10. Amey Baviskar and **A.N.Ghadge**, (2015). *Risk Identification and Analysis in the Construction Project*, *National Conference on “Role of Engineers in Nation Building (NCRENB-2015)*, organized by VIVA Institute of Technology, Shirgaon, Virar (E), Thane, 5th -6th March-2015.
11. Ankur Bhoite and **A.N.Ghadge**, (2015). Critical success factors for implementation of Public Private Partnership in Real Estate project, *National Conference on “Role of Engineers in Nation Building (NCRENB-2015)*, organized by VIVA Institute of Technology, Shirgaon, Virar (E), Thane, 5th -6th March-2015.

12. Arpit B. Chaudhari, Prashant P. Nagrale, and **A.N.Ghadge**, (2015). Planning and Designing of Economical Water Distribution Network for R/Northward Mumbai City: A Case Study, *National Conference on "Role of Engineers in Nation Building (NCRENB-2015)*, organized by VIVA Institute of Technology, Shirgaon, Virar (E), Thane, 5th -6th March-2015.
13. Namdev R. Sutar and **A.N.Ghadge**, (2015). Performance Evaluation of Earned Value Management in the Construction Industry, *National Conference on "Role of Engineers in Nation Building (NCRENB-2015)*, organized by VIVA Institute of Technology, Shirgaon, Virar (E), Thane, 5th -6th March-2015.
14. **Ghadge A.N.**, and Sawant P.H. (2007), "Quality Management System In Construction" National conference on "Emerging Technology and Developments in Civil Engineering." (ETDCE-07), Amravati, 22-23 March, 2007.
15. **Ghadge A.N.**, and Sawant P.H. (2008), "Quality Control In Material Management" International Conference on "Innovations in Building Materials, Structural Designs and Construction Practices" (IBMSDCP-2008), Erode Tamil Nadu, 15-17 May 2008.
16. **Ghadge A.N.**, and Sawant P.H., (2008), "Design of storm Water Drainage system" National Conference on "Sustainable Water Resources Development and Management, SWRDAM-2008", Aurangabad., 13-14 June, 2008.
17. **Ghadge A.N.**, and Sawant P.H., (2008) "Role of WTO towards Environmental Protection " in the International Conference on Green Growth to be held in December, 15th - 18th , 2008 , IBS, Hyderabad.
18. **Ghadge A.N.**, and Sawant P.H., (2008) "Use of Inventory control technique in civil Engineering Project- A case Study" in the International Conference on Emerging Trends in Civil Engineering, , Loni, Ahemednagar, Maharashtra 20th – 22nd December, 2008.