

## Curriculum Vitae

**Name** : Dr Ashwani Kumar Rathore  
**Date of Joining** : 25<sup>th</sup> February 2003  
**Designation** : Professor,  
 Department of Chemical Engineering  
 School of Chemical Technology  
 Harcourt Butler Technical University  
 Kanpur-208002, India.

**Qualification** : B. Tech.(Hons.) (Chemical Engineering)-  
 NIT (Formerly GEC) Raipur  
 M. Tech (Distn.) (Chemical Engineering)  
**Silver Medal**  
 Ph. D. (Chemical Engineering)-  
 MANIT Bhopal

**PhD Guidance** : **Ongoing**  
 1. Ms Parul Dwivedi (full time)  
 “Development of CNT Based Polymer Composites and Adsorbents”  
 2. Mr Amit Kumar Tiwari (Part time)  
 “Development of Graphene oxide Paints for corrosion prevention”

### Publications

#### List of Papers Published In Journals

S.no.	Paper title	Journal
1.	Extraction of turmeric oil by continuous water circulation	International Journal of Scientific Engineering and Applied Science (IJSEAS)
2.	Reactive extraction of Itaconic acid using TBP in 1-butanol,1-octanol and 1-decanol	International journal of innovative research in science, engineering and technology
3.	Microwave extraction of Ginger	Journal of Scientific Engineering and Applied Science (IJSEAS)
4.	Recovery of Itaconic acid from an aqueous solution By using chemically modified vegetable oil as a diluent	RJPBCS
5.	Recovery of Fumaric acid from Aqueous Solution Using Laboratory Prepared Nontoxic Diluent	International Journal of Chem Tech Research
6.	Acrylic acid recovery using Tri-n-butyl phosphate in a laboratory made nontoxic non-edible diluent and efficiency comparison with Tri-n-octyl amine	RJPBCS
7.	Recovery of Volatile Acids from Aqueous Solution by Tri-n- Butyl Phosphate dissolved in laboratory Made Nontoxic Diluent	International Journal of Chem Tech Research

8.	Recovery of Glutaric acid by Reactive Extraction using Tri-n-Octylamine in Different Bio diesels	Oriental Journal OF Chemistry
9.	Evaluation of Distribution of Succinic Acid between Binary Phase System with Biodiesel + N,N-Dioctyloctan-1-amine	International Journal of Chemical Engineering
10.	Uptake Capacity of Natural Based Biodiesel for the Extraction of Fumaric Acid	International Conference on recent advances in interdisciplinary trends in engineering and application
11.	Extractive Separation of Acetic Acid from Aqueous Solution using Tertiary Amine + Biodiesels at 298±K	International Conference on recent advances in interdisciplinary trends in engineering and application
12.	Studies on the structural changes during curing of epoxy and its blend with CTBN	Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy
13.	Explore the competency of natural diluents with Tri-n-Octylamine for the extractive separation of malonic acid	Chemical Data Collections
14.	Investigation of kinetic and thermodynamic parameters for pyrolysis of peanut shell using thermo gravimetric analysis	<i>Biomass Conversion and Biorefinery</i> (2020)
15.	Thermal, kinetic and thermodynamic study for co-pyrolysis of pine needles and styrofoam using thermogravimetric analysis	Energy 2021

### Book Chapter

1. “DGEBA for Improved Epoxy/CaCO<sub>3</sub> Nanocomposites Resistance and Mechanical Properties for Coating Applications.” Journal of Trends and Applications in Advanced Polymeric Materials
2. Investigation of Novel Epoxy/Mixed Plastic Waste Char Nano-composites: Mechanical, Thermal, and Morphological Properties “Recent Advances in Manufacturing and Thermal Engineering (pp.451-464)”

### R & D

1. Microwave extraction of essential Oils (DIC Project)
2. Recovery of Citric acid from aqueous solution (TEQIP-II)

3. Value addition to the waste plastic for sustainable development (TEQIP-III)

### **Research Interests**

- Synthesis of Carbon nanotubes from plastics and its applications
- Reactive extraction
- Catalysis
- Microwave Essential oil extraction
- Composites

### **Guided M. Tech. Thesis**

1. Mr. Avinash Chandra "Extraction of turmeric oil by continuous water circulation"
2. Mr. Rahul Yadav "Microwave extraction of Ginger"
3. Mr. Ankit Gupta "Microwave assisted hydro distillation extraction and optimization of essential oil from lemon grass".
4. Mr. Rahul Rajput "Optimization of Parameters Using RSM for Reactive extraction of Propionic Acid from Aqueous Solution".
5. Mr. Sumit prajapati "Physical Extraction of Propionic acid".
6. Mr. Mohit Kumar Singh "To study the effect of parameters on Hydrolysis of Cellulose using Factorial Design".
7. Ms Shafali goel "Reactive extraction of Phenol".
8. Ms Shaida Anjaum "Reactive Extraction of Itaconic acid using TBP in 1- Butanol , 1-Octanol and 1-Decanol".
9. Ms Surbhi Dahiya " Studies Reactive extraction of acetic acid from aqueous solution".
10. Mr Sarvesh patel "Studies on Reactive extraction of Propionic acid from aqueous solution".
11. Mr Alok deep "Reactive Extraction of Itaconic acid from aqueous solution using TOA in Non-toxic Solvent".
12. Mr Praneet Mishra "Reactive extraction of caproic acid using mixed tertiary extractant in non toxic diluent".
13. Ms Deepa Agarahari" Studies on mechanical behaviour of waste plastic reinforced epoxy composite"
14. Mr Amit Kumar Tiwari "Investigation of paint shop generated phosphate sludge and paint sludge for pyrolysis process using TGA and sample characterization"
15. Ms Anjali Singh" Study to determine thermodynamic and kinetic parameter during copyrolysis of sugarcane bagasse and smoked cigarette butts using thermogravimetric analysis"

### **Interactions:**

#### **List of short term courses attended/organized**

1. TEQIP School on " Chemical Micro Process Engineering: Flow Modelling and application " organized by, IIT, Roorkee during June 20-24 2016.
2. TEQIP II sponsored workshop on "Intellectual property rights (IPR) and patenting" organized by Department of BEFT, SoCT, HBTU, in collaboration with ECSI-The institution of Engineers (India), Hyderabad during Aug. 27-29, 2016.

3. Workshop on " Occupational Health and Safety Management Practices ", as Organizing Secretary, organized by Department of Chemical Engineering, SoCT, HBTU, Kanpur on 03-05 October 2016 at HBTU, Kanpur.
4. TEQIP II sponsored workshop on "Energy conservation and energy audit in academic institutions" organized by Department of Chemical Engineering, HBTU, in collaboration with ECSI, The institution of Engineers (India) during March 07-08, 2017.
5. TEQIP II sponsored FDP on Emerging trends in food and Bio process industries " organized by Department of BEFT, HBTU, Feb 6-11,2017.
6. TEQIP II sponsored workshop on "Occupational health and safety management practices" organized by Department of Chemical Engineering, HBTU, in collaboration with ECSI-The institution of Engineers (India) during Oct 03-05, 2017.
7. TEQIP II sponsored workshop on "Effective pedagogy for engineering faculties" organized by Department of Electrical Engineering, SoE, HBTU, in collaboration with ECSI-The institution of Engineers (India), Hyderabad during March 26-28, 2017.
8. TEQIP School on "Mechanics of reinforced polymer composites" organized by Knowledge Incubation for TEQIP, IIT, Kanpur during Jan 22-25, 2017.

#### **Workshop organized**

1. Workshop on "CHEMCAD and PROLYN", as Organizing Secretary, organized by Department of Chemical Engineering, SoCT, HBTU, Kanpur on 21.03.2017 at HBTU, Kanpur.
2. Workshop on "Basic Liquid Chromatography", as Organizing Secretary, organized by Department of Chemical Engineering, SoCT, HBTU, Kanpur during March 27-28, 2017 at The Landmark Towers, Kanpur.

#### **Invited lecture:**

Invited lecture titled "Electro Chemistry" in FDP on "Updating applied chemistry" organized by IRDT Kanpur on 20.09.2016

Invited lecture titled "Forms of corrosion" in FDP on "Corrosion control in chemical and allied industries" organized by HBTU Kanpur during 22- 27 August 2016.

**\*\*\*Patents:** Published 3 patents on touchfree tap, microwave water distillation and bamboo char composite.