National Institute of Technology, Tiruchirappalli:
Performa for CV of Faculty/ Staff Members

Curriculum Vitae

Brief Profile:

Dr. Khilesh Kumar Bhandari is an Assistant Professor in the Department of Metallurgical and Materials Engineering at NIT Tiruchirappalli. He obtained his Ph.D. from the Indian Institute of Technology Kharagpur, with a thesis titled *"Exploring the Role of Local Microstructures on Mechanical Behaviour of Low-Carbon Ferritic Steel."* His expertise lies in process–microstructure–property correlations in steels, fracture mechanisms and mechanics, finite element analysis, and nanoindentation.

His current research focuses on understanding the influence of localized microstructural and property variations on the global mechanical, physical, and failure behaviour of materials, with particular emphasis on failure and fracture phenomena, using integrated experimental and computational approaches. In addition to his research activities, he is actively involved in teaching undergraduate and postgraduate courses on mechanical behaviour of metals and fundamentals of material science.

1. **Name** :Khilesh Kumar Bhandari
2. **Designation** :Assistant Professor Grade II
3. **Office Address** :Dept of Metallurgical and Materials Engineering, NIT Trichy, Tiruchirappalli – 620015, Tamil Nadu, India.
4. **Telephone (Direct) (Optional)** :-

   Telephone :
   Extn (Optional)

   Mobile (Optional)
5. **Email (Primary):** khilesh@nitt.edu **(Secondary)** :khileshbha009@gmail.com
6. **Field(s) of Specialization** :Processing-microstructure-property correlation, Fracture mechanism and failure analysis, FEM, Steel research, Nanoindentation

7. **Employment Profile**

Job Title	Employer	From	To
Assistant Professor Grade-II	NIT Trichy	January 2026	Till date

8. **Academic Qualifications (From Highest Degree to High School):**

Examination	Board / University	Year	Division/ Grade	Subjects
PhD	IIT Kharagpur	2024	NA	Metallurgical and Materials Engineering
M. Tech (Under Dual Degree program)	IIT Kharagpur	2015	8.05/10	Metallurgical and Materials Engineering
B. Tech	IIT Kharagpur	2015	8.05/10	Metallurgical and Materials Engineering
12^{th}	CBSE	2008	74.2%	Physics, Chemistry, Mathematics, English, Hindi
10^{th}	CBSE	2006	87%	Science, Social science, Mathematics, English, Hindi

9. **Academic/Administrative Responsibilities within the University**

Position	Faculty/Department/Centre/Institution	From	To

10. **Academic/Administrative Responsibilities outside the University**

Position	Institution	From	To

11. **Awards, Associateships etc.**

Year of Award	Name of the Award	Awarding Organization

12. **Fellowships**

Year of Award	Name of the Fellowship	Awarding Organization	From (Month/Year)	To (Month/Year)

13. **Details of Academic Work**

(i) Curriculum Development : Nil

(ii) Courses taught at Postgraduate and Undergraduate levels :

1. Fatigue, Creep and Fracture mechanics (UG)
2. Metallic Materials (PG)

(iii)Projects guided at Postgraduate level : Nil

(iv)Other contribution(s) : Nil

14. **Details of Major R&D Projects**

Title of Project	Funding Agency	Duration		Status
		From	To	Ongoing/ Completed

15. **Number of PhDs guided**

Name of the PhD Scholar	Title of PhD Thesis	Role(Supervisor/ Co-Supervisor)	Year of Award

16. **Participation in Workshops/ Symposia/ Conferences/ Colloquia /Seminars/ Schools etc. (mentioning the role)**

Date (s)	Title of Activity	Level of Event (International/ National/ Local)	Role (Participant/ Speaker/ Chairperson, Paper presenter, Any other)	Event Organized by	Venue
April 2019	Research Scholar Day	Local	Paper presenter	Department of MME, IIT Kharagpur	IIT Kharagpur
Aug-Sept 2019	European Congress and Exhibition on Advanced Materials and Processes (EUROMAT)	International	Paper presenter	Federation of European Materials Societies (FEMS)	Stockholm, Sweden
November 2019	National Metallurgists' Day and Annual Technical Meeting (NMD-ATM)	National	Paper presenter	Indian Institute of Metal	Kerala

17. **Workshops/ Symposia/ Conferences/ Colloquia/Seminars Organized (as Chairman/ Organizing Secretary/ Convenor / Co-Convenor)**

Title of Activity	Level of Event (International/ National/ Local)	Date (s)	Role	Venue

18. **Invited Talks delivered**

Topic	Date	Inviting Organization

19. **Membership of Learned Societies**

Type of Membership (Ordinary Member/ Honorary Member / Life Member)	Organization	Membership No. with date

20. **Academic Foreign Visits**

Country	Duration of Visit	Programme
Sweden	Aug-Sept 2019	Attended Conference Seminar

21. **Publications**

(A) Refereed Research Journals:

Author(s)	Title of Paper	Journal	Volume (No.)	Page numbers	Year	Impact Factor of the Journal (Optional)
K.K. Bhandari, A. Mandal, M.B. Sk, A. Karani, D. Gandhi, A. Deb, D. Chakrabarti	Crack-tip gradient microstructure: Formation and influence on impact toughness behavior of low-carbon ferritic steel	Materials Science and Engineering A	930	148166	2025	7.0
K.K. Bhandari, G.J. Rai, A. Mandal, A. Deb, S. Paul, D. Chakrabarti	Nanoindentation fatigue response of surface grinding-induced ultrafine grains in low-carbon ferritic steel	Materials Today Communications	43	111573	2025	4.5
R.K. Barik, S. Biswal, **K.K. Bhandari**, A. Ghosh, D. Chakrabarti	Micromechanics of cleavage fracture and the associated tongue formation in ferritic steel	Materials Science and Engineering A	885	145616	2023	7.0
A. Mandal, B. Syed, **K.K.**	Bending induced anisotropy in properties: A	Materials Science and Engineering	788	139521	2020	7.0

Bhandari, B. Bhattacharya, A. Deb, S.B. Singh, D. Chakrabarti	mechanistic study	A				
K.K. Bhandari, A. Mandal, M.B. Sk, A. Deb, D. Chakrabarti	Tailoring the crack-tip microstructure: A novel approach	Philosophical Magazine Letter	99	57–66	2019	1.2
A. Mandal, B. Syed, **K.K. Bhandari**, B. Bhattacharya, A. Deb, S.B. Singh, D. Chakrabarti	Cold-bending of linepipe steel plate to pipe, detrimental or beneficial?	Materials Science and Engineering A	746	58–72	2019	7.0

(B) Conferences/Workshops/Symposia Proceedings

Author(s)	Title of Abstract/ Paper	Title of the Proceedings	Page numbers	Conference Theme	Venue	Year

(C) Books & Monographs

Author(s)	Title of Book/Monograph	Name of Publishers	Year of Publication	ISSN/ISBN Number