



## Aakash D BANSAL

NIT Kurukshetra/Haryana, India |

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|  linkedin

### SUMMARY

CAE Expert offering outstanding communication, organizational and multitasking abilities. A complete professional with Four years of experience in Teaching and Three years in Research. Expert in performing Linear/Non-Linear Structural Analysis, Thermal Analysis, Contact and Fracture Analysis and simulation. Flexible in working anywhere across globe.

### EDUCATION

#### DELHI TECHNOLOGICAL UNIVERSITY, DELHI

August, 2017-

PH.D. IN MECHANICAL ENGINEERING

- Dissertation on Study of contact characteristics to estimate wear and fatigue life of rail under service conditions in Indian Railway.
- Paper titled Estimation of crack growth on rails under the combined influence of thermo-mechanical loading due to the sliding of wheel is communicated to International Journal of Rail Transportation (SCI-E).
- Paper titled Studies on the effects of braking loads on railway wheel is published in IOP Conference Series- Material Science and Engineering (Scopus Indexed). <https://doi.org/10.1088/1757-899X/691/1/012019>.
- Paper titled Computational framework to evaluate pressure distribution on rail using Hertzian approach is published at 2<sup>nd</sup> International Rail Symposium Aachen, Germany.
- Paper titled Computational framework to study effect of material hardness on pressure distribution using Hertzian approach in rail-wheel contact is published at International Conference on Production and Industrial Engineering, Dr. B. R. Ambedkar NIT Jalandhar (Springer-Scopus Indexed).

#### NIT CALICUT, KOZHIKODE, KERALA

2013-2015

M.TECH IN MANUFACTURING TECHNOLOGY

- Dissertation on the topic Studies on the combined effect of thermo-mechanical loads on fatigue crack growth in a railway wheel
- Paper titled Studies on the effects of braking and thermo-mechanical loads in a railway wheel is published in Proceedings of National Conference on Product Design and Manufacturing, MNNIT Allahabad

#### JSS ACADEMY OF TECHNICAL EDUCATION , GAUTAM BUDDH TECHNICAL UNIVERSITY

2008-2012

B.TECH IN MANUFACTURING TECHNOLOGY

### EXPERIENCE

#### COREEL TECHNOLOGIES (I) PVT. LTD., KURUKSHETRA, HARYANA

Jan, 2020-

FACULTY AND INDUSTRIAL EXPERT, TEST AND OPTIMIZATION LAB, SIEMENS CENTER OF EXCELLENCE, NIT KURUKSHETRA

- Core member in DRDO funded project to deliver structural and thermal analysis of Jet Blast Deflector system and its support structure.
- Core member in DRDO funded project to deliver furl/unfurl mechanism for Mesh Reflector and Reflect Array Antenna.
- Mentored dissertation research works and internships to aid in publishing research findings.
- Developed and delivered online and on-site training using Simcenter-3D and Star CCM+.
- Liaison with academia and industries for collaboration and association activities.
- Hardware/Software Installation, Testing and Commissioning in Test and Optimization Lab.
- Preparing booklet, brochure, SOP, presentations, video lectures, posters and online webinars to promote lab activities.
- Performed in-depth research and data collection for use in academic publishing projects in collaboration with NIT-KKR faculties.

#### ABES ENGINEERING COLLEGE, GHAZIABAD, UTTAR PRADESH

2015-2017

ASSISTANT PROFESSOR IN THE DEPARTMENT OF MECHANICAL ENGINEERING

- Maintained student engagement through creative classroom management

- Supervised dissertation research works to aid in publishing research findings.
- Developed and delivered online training using Abaqus –CAE and taught Abaqus- Standard/Explicit and Abaqus-Command.
- Directed students in the area of Contact Mechanics, Fracture Mechanics, Wear and Tribology to pursue research by performing computational studies.
- Collaborated with professors and faculty members in contribution to Mokshda Paryavaran Evam van Suraksha Samiti to develop Green Cremation system.
- Performed in-depth research and data collection for use in academic publishing projects.

## TECHNICAL SKILLS

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<b>CAE TOOLS</b>	<b>Experienced:</b> Abaqus-CAE   Abaqus Command   Simcenter-3D
<b>CFD TOOLS</b>	<b>Familiar:</b> Star CCM+
<b>MULTIBODY DYNAMICS TOOL</b>	<b>Familiar:</b> Simpack Rail   Simcenter Amesim
<b>FATIGUE LIFE SOLVERS</b>	<b>Experienced:</b> FE-Safe
<b>COMPUTATIONAL ANALYSIS SKILLS</b>	Structural (Linear/Non-linear Analysis)   Thermal Analysis   Modal Analysis
	Contact Analysis   Optimization   Fracture

## FUNCTIONAL/COMMUNICATION SKILLS

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- **Language** (*Reading*) English and Hindi (*Writing*) English and Hindi (*Speaking*) English and Hindi
- Editing and Proofreading
- Documentation
- Communication Expertise
- Group Leader
- Interpreting Literature

## EXTRA

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- **GATE AIR- 3699** for year 2012 in Mechanical Engineering
- Attended International Summer Winter training Workshop on *High Speed Railways* at Center for Railway Research, IIT Kharagpur, December, 2014.
- Attended two weeks Faculty Development Program on *Analysis of Non-linear problems by Finite Element Method* organized by GIAN, MHRD initiative and conducted by Prof. Dr. R. C. Batra, Virginia University at MNIT Jaipur , December, 2016.
- Attended one week Faculty Development Program on *Finite Element Methods for Engineers and Researchers* at IIT Mandi in May, 2018.
- Attended one week online ATAL Academy Faculty Development Program on *Design Thinking* at Veermata Jeejabai Technological Institute, Mumbai in September, 2020.
- Attended one week online ATAL Academy Faculty Development Program on *Computational Fluid Dynamics* at Sym-biosis Institute of Technology, Pune in September, 2020.