



Dr. AJITH KUMAR A, PhD

CFD researcher with industrial experience (production support, liaison) in Hindustan Aeronautics Limited, Bangalore. Proven track record in CFD research, with international publications and conferences. Excellent oratory and writing skills. Presently engaged in CFD research and teaching undergrads.

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Kerala, 688005 India

SKILLS

Technical Skills (Engineering Simulations): Ansys Workbench 15.0 for CFD, Advanced coding skills in Fortran 90, SigmaPlot, LabVIEW, COMSOL

Areas of Research: Computational Fluid Dynamics (CFD), simulations of volatile electrospays, aerodynamics, transport phenomena.

EDUCATION

PhD (Universitat Rovira i Virgili, Tarragona, Spain. Dec 2010 –July 2014)
Numerical simulations on the fluid dynamics and transport phenomena of electrostatically charged volatile sprays.

MTech : Aerospace Engineering (IIT-Bombay. June 2004 –July 2006)
Specialization in Aerodynamics.

BTech : Mechanical Engineering (College of Engineering, Trivandrum. June 1996 - June 2000)

WORK EXPERIENCE (in reverse chronological order)

1. Assistant Professor-Mechanical Engineering (July 2015 – Present): 1 yr

Research-cum-teaching at the Rajagiri School of Engineering (RSET), Ernakulam, Kerala, India. Areas of interest:

- + Fluid Mechanics
- + Aerospace Engineering
- + Ongoing research: CFD analysis of towed bodies (naval application), Wing-In-Ground effect for aircrafts: Optimization studies through numerical simulations.

2. Doctoral Researcher (URV Spain, December 2010 – July 2014): 3yr 8m

Research scholar in the Droplets, intErfaces & floWs (DEW) research group at URV, Spain successfully earning a doctoral degree. CFD research on microfluidic systems characterized by free liquid interfaces.

- + Numerical simulation of Electrospays (**Engineering simulations**)
- + Spray modeling, transport phenomena in volatile sprays
- + Developed a fully coupled numerical scheme for the multiphase transport phenomena. Simulations done through extensive coding in Fortran90.

3. Deputy Manager/Engineer (HAL Bangalore, July 2007 – December 2010): 3 yr 6 m

Deputy Manager/Engineer at the Helicopter Division of Hindustan Aeronautics Limited (HAL), Bangalore in charge of design liaison and technical training of aircraft mechanical systems.

- + Aircraft mechanical systems: Preparation of training materials, Customer support: class room training and in-situ training on aircraft, Industrial management, Liaison Engg.
- + Business Process Management, Workflow management, Customer Services, Lean, Kaizen.

4. Software Developer- PLM (Product Lifecycle Management) applications for Dassault Systems (Geometric Software Solutions-GSSL, Pune, July 2006 – July 2007): 1 yr

Software developer/Engineer at Geometric Software Solutions-GSSL Pune, involved in developing PLM software solutions under trade mark e-Matrix (product owner: Dassault Systems, France)

- + Codes developed in jsp, SQL, database: Oracle.
- + Modules were developed for workflow management, software integration in aero industry.

INTERNATIONAL PUBLICATIONS & CONFERENCES

- + “A comprehensive framework for the numerical simulation of evaporating electrosprays”, **Ajith Kumar Arumugham-Achari**, Jordi Grifoll i Taverna, Joan Rosell-Llompart; Aerosol Science and Technology, 49 (6), 04/2015, Pages 436-448. (Impact factor: 2.413)
- + “Computer simulation of electrospraying of volatile liquids”, **Ajith Kumar Arumugham-Achari**, Jordi Grifoll i Taverna, Joan Rosell-Llompart; RICTA 2014. The 2nd Iberian Meeting on Aerosol Science and Technology / Tarragona, Spain 07-09 July 2014.
- + “Numerical simulations of evaporating electrosprays with Coulomb explosions”, **Ajith Kumar Arumugham-Achari**, Jordi Grifoll i Taverna, Joan Rosell-Llompart; AEROSOL TECHNOLOGY 2014 (AT2014) / Karlsruhe, Germany 16-18 June 2014.
- + “Two-way coupled numerical simulation of electrospray with induced gas flow”, **Ajith Kumar Arumugham-Achari**, Jordi Grifoll i Taverna, Joan Rosell-Llompart; Journal of Aerosol Science, 65, November 2013, Pages 121–133. (Impact factor: 2.719)
- + “Effects of induced gas flow on electrospray dynamics”, **Ajith Kumar Arumugham-Achari**, Jordi Grifoll i Taverna, Joan Rosell-Llompart; European Aerosol Conference (EAC 2013)/ Prague, Czech Republic 01-06 September 2013.
- + “Numerical Simulation of Electrospray Droplets Dynamics”, Jordi Grifoll i Taverna, **Ajith Kumar Arumugham-Achari**, Joan Rosell-Llompart; V Reunión Española de Ciencia y Tecnología de Aerosoles (RECTA 2011)/CIEMAT(Madrid) ISBN: 978-84-7834-662-2
- + “Unsteady flow behind a blunt based POD model”, Dr. SD Sharma, **A A Kumar**; IUTAM Symposium on Unsteady Separated Flows and their Control; Corfu, Greece; 18-22 June 2007/ IUTAM Bookseries, Vol. 14.

CERTIFICATIONS/ SCHOLARSHIPS AWARDED

- + Advanced course certification in Ansys Workbench 15.0 for CFD, June 2016
- + Awarded '*Excellent-cum-laude*' for Doctoral thesis, July 2014
- + Research scholarship in engineering CFD from URV Spain, 2010-2014
- + Selected for KGSP (Korean Government Scholarship Program) in engineering research: 2010
- + Industrial Management certification from HAL Management Academy, Bangalore: July, 2008

COURSES/ TRAINING RECEIVED

- + Advanced training in Ansys Workbench 15.0 for CFD: FSI, Meshing, DPM, DDPM: June 2016
- + Participant: 1st National Symposium on CFD and FEA at VJCET India: 5th-9th May 2016
- + Participant: COMSOL Conference 2013 Rotterdam, Netherlands: October 2013

LANGUAGES KNOWN (READ,WRITE,SPEAK)

- + **1. English (Fluent user: IELTS score 7.5/9) : Read: 8.0, Write: 7.0 , Speak: 6.5 , Listen: 8.5**
- + 2. Spanish (Basic), 3. Hindi (Fluent), 4. Tamil (Fluent), 5. Malayalam (native)

REFEREES

- + Dr. Joan Rosell Llompart (Research Professor)
DEW Research group, Universitat Rovira i Virgili
43006 Tarragona, Catalunya (Spain)
Phone: +34-977-558-660 E-mail : joan.rosell@urv.cat

- + Dr. Jordi Grifoll i Taverna (Professor)
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43006 Tarragona, Catalunya (Spain)
Phone: (+34) 977559639 E-mail : jordi.grifoll@urv.cat

I hereby declare that all entries in this curriculum vitae are true to the best of my knowledge and belief.

Date : 18th June 2016

Signature : 

Place : India