

Papers Published

Dr SK MAHARANA: Personal publications

SK Maharana, Praveen B Mali, Ganesh Prabhakar P, Sunil J, Vignesh Kumar, 2011, Cloud Computing Applied for Numerical Study of Thermal Characteristics of SIP, International Journal of Cloud Applications and Computing(Accepted).

P B Mali , G Prabhakar , S K Maharana, 2011, An efficient and MATLAB based simulation technique to analyse thermal characteristics in SIP using Cloud, International Journal of Peer to Peer Networks (Accepted)

Vignesh Kumar V, Sunil J, S K Maharana, S K Parida, A Study of Cloud Computing Architecture to facilitate thermal characteristics of chips in Stack, presented at National Symposium on Instrumentation (NSI-35), January 7-9, 2011, Visvesvaraya Tech University , Karnataka, India

Vignesh Kumar V, Sunil J, Dr S K Maharana, Proof of Concept of a Cloud Computing Architecture to compute Thermal characteristics of a Multi-chip Module (MCM), First National Conference on Computational Control Systems and Optimization, CCSO 2011, 12 – 13 May 2011(Accepted)

Praveen B Mali, Ganesh Prabhakar P, Sunil J, Vignesh Kumar V, Dr. S.K.Maharana, Cloud Computing Network Explored for the Computation of Thermal Characteristics of SIP , International Conference on Frontiers of Computer Science, 7-9 Aug, 2011, J.N. Tata Convention Centre, IISc, Bangalore(Communicated).

S K Maharana & A K Ghosh , 2010, Numerical Prediction of Vorticity and Net Axial Drag of Flows over a Prismatic Building and a Sloping Roof structure in Tandem Arrangement, International Journal of Applied Mathematics and Mechanics,6(16), 56 – 66

S K Maharana & A K Ghosh , 2010, A Numerical Investigation of Interference Effect of flows over a Sloping Roof Structure. Prismatic Building in Tandem Arrangement , International Journal of Applied Engineering Research, Vol 5, No.20, 3311-3321.

S.K.Maharana & A K Ghosh , 2010, A Numerical Prediction of Interference Effect of flows over a Prismatic Building and a Sloping Roof Structure in side-by-side arrangements using LES technique, International Journal of Applied Mathematics & Engineering Sciences, Vol. 4 No.2, 133-142

S K Maharana & A K Ghosh , 2010,A Numerical Investigation of Interference of a sloping Roof Structure on the flow around a Prismatic Building using LES Method, The Fifth Int. Symp. On Computational Wind Engineering(CWE2010), Chapel Hill , North Carolina, USA, May 23-27.

S K Maharana & A K Ghosh , A numerical investigation of vortex-shedding phenomenon over a sloping roof structure in tandem with a prismatic building using LES method, Journal Wind Engineering and Industrial Aerodynamics, Elsevier publisher(under review).

S K Maharana & A K Ghosh, A numerical Study of Flow over a Sloping Roof Structure in Tandem Arrangement , Journal of Wind and Engineering 1 (2004) 53-59

S.K.Maharana, A.K.Ghosh, Numerical Simulation of Flow over successive buildings of square cross section, J. Wind Eng.Ind.Aerodyn.67/68(1997) 944

S.K.Maharana, A.K.Ghosh, A numerical study of flow around two buildings in tandem arrangement, 4th Asia-pacific symp. On Wind Eng., Gold Coast, Australia, July 14-16, 1997

S.K.Maharana, A.K.Ghosh, 10th Int. Conf. on Wind Eng., Copenhagen, Denmark, 1999

S.K.Maharana, Numerical simulation of three-dimensional flows over and round building models, 1st Nat. Conf. on Computer Aided Structural Analysis and Design, Hyderabad, 1996

S.V. Desai, S.K.Maharana, A.K.Ghosh, Numerical Simulation of Flow Around Two Successive Prismatic Buildings, Int. Conf. On mathematical modeling of Non-linear System, IIT, Kharagpur, India, 1999.

S.K.Maharana, A.K.Ghosh, A Numerical study of wind flow and surface pressure distribution over two prismatic buildings in tandem arrangement, Workshop on CFD, Dec5-7, 2001,Aerospace Engg. Dept, IIT, Kharagpur.

S.K.Maharana, A.K.Ghosh, Numerical predictions of wind flow patterns and effects over and around 3D building model using k-epsilon modeling, 39th Congress ISTAM, School of Mathematics, Andhra University, Visakhapatnam, 1994

S.K.Maharana, A.K.Ghosh, Development of a Code using LES for the study o Wind over Prismatic building, Nat. Conf. On Wind Engineering (NCWE-02), April4-6, 2002 ISWE, Center of Wind Engineering, IIT, Roorkee, India

S.K.Maharana, A.K.Ghosh and D. Padhi, A Numerical Study of Flow over a Prismatic Building,11th International Conference on Wind Engineering,June2-5,2003,Texas Tech University, USA

S.K.Maharana, A.K.Ghosh , Numerical simulation of flow over two successive buildings of square cross section, 2nd Int. Conf. on Computational Wind Engg., Colorado State University, Colorado, USA, Aug. 4-8, 1996.

Papers Published

Publications by S C Gupta

Gupta, S.C., "Computational Aerodynamic Design Concepts for Futuristic Air Combat," ICAS Paper No. 88-4 4.4.3, 16th International Council of Aeronautical Sciences August 28 - September 2, 1988, **Israel**.

Gupta, S.C., "Aerodynamic Characteristics of Forward Sweep," AIAA Paper No. 90-3041, 8th AIAA Applied Aerodynamic Conference, August 20-22, 1990, Portland, **USA**.

Gupta, S.C., "Computing Aerodynamics on Parallel Computers," ICAS Paper No. 90-6.8.1, 17th International Council of the Aeronautical Sciences September 9-14, 1990, Stockholm, **Sweden**.

Gupta, S.C., "Stability Considerations for Enhanced Maneuverability," ICAS Paper No. 92-2.10.1, 18th International Council of the Aeronautical Sciences, September 21-25, 1992, **China**.

Gupta, S.C., "Aerodynamic Airworthiness Assessment for Combat Aircraft," ICAS Paper No. 94-1.7.4, 19th International Council of the Aeronautical Sciences, September 18-23, 1994, Anaheim, **USA**.

Gupta, S.C., "Flying Qualities Regarding Unstable Fighter Aircraft- An Overview," AIAA AFM/NPU Conference, June 11-14, 1996, XI' AN, **China**.

Gupta, S.C., "Computational Algorithms for the Configuration Design," ICAS Paper No. 98-6.4.5, 21st International Council for the Aeronautical Sciences, September 13-18, 1998, Melbourne, **Australia**.

Gupta, S.C., "Transonic Flow Computations Past Optimally Warped Wings," ICTACEM – 98, Dec 1-5, 1998, IIT Kharagpur, **India**.

Gupta, S.C., "Advancements in Computational Techniques for Aerodynamic Strategic Design," "AIAA Atmospheric Fluid Mechanics Conference," 11-14 August 2003, Austin, Texas, **USA**.

Gupta, S.C. "Handling Qualities – Fighter Aircraft," Paper no. ICAS 2004. 4.9.4, 24th International Council for the Aeronautical Sciences, 30 Aug – 03 Sept 2004, Yokohama, **Japan**.

Details of Published Computer Codes

Gupta, S. C., "OPSGER: Computer Code for Multi-Constraint Wing Optimization," Journal of Aircraft, Vol.25. N0.6, June 1988.

Gupta, S. C., "GENMAP: Computer Code for Mission Adaptive Profile Generation," Journal of Aircraft, Vol.25. N0.8, August 1988.

Gupta, S. C., "WINGER: Computer Code for the Aerodynamic Analysis of Wings," J. Ae.S.I. Vol.42. No.2 May 1990.

Gupta, S. C., "COPTIM: Computer Code for Canard Coupled Wing Optimization," Canadian Aeronautics and Space Journal, Vol.37, N0.4, December 1991.

Gupta, S. C., "DWING: Computer Code for Aerodynamic Design of Wings," Presented at the VI National Conference of Aerodynamics, ADE, 23-25 September 1992, Bangalore.

Gupta, S. C., "TWING: Computer Code for Transonic Flow Analysis Over Wings," Presented at the 44 AGM of the Ae.S.I. at I.I.Sc., 11 December 1992, Bangalore.

Some Recent Publications/Presentations

Gupta, S. C., "Flight Envelope Expansion during Prototype Development," National Conference on Emerging Trends in Aeronautical Engineering, GITAM University, Hyderabad, 26-27 March 2012.

Gupta, S.C., "Insight Into Computational Algorithms," Journal of Engineering Science & Technology Management, Vol.1, Issue1., 2012.

Janardhana K & Gupta, S.C., "Airworthiness: An Overview," National Conference on Trends & Developments in Aeronautical & Avionics Engineering, Adhiyamaan College of Engineering, Hosur, T.N., 28-29, July 2011.

Gupta S C., "Experimental Studies on Complex Swept Rotor Blades," under publication

Authored following Book:

Aerodynamics Airworthiness @ Interline Publisher, 2005

Publications by Deepa M.S

Multi-disciplinary Optimization of an Aircraft Wing Box using iSIGHT- International Conference on Mechanical Engineering at M.S.R.I.T, Bangalore

"Flight Envelop Expansion during Prototype Development"- Journal of Aerospace Science and Technologies, Aeronautical Society of India

Papers Published by Other Faculty

Modeling and flow Analysis of Modern Fighter Aircraft Configuration using CFDRAET-2011 written by Nishanth P and S Srinivasan

Grants Obtained

Rs 09 Lakhs VTU Grant for the following Project

Investigation of Effects and Hazards of Wind Flow on Buildings in
Multiple Arrangements using CFD – **By Dr S K Maharana and Janardhana K**

ARDB grant of Rs 5.35 Lakhs for the following project

Experimental Studies on Complex Swept Rotor Blades- **By Prof S C Gupta**

Grant of 5L by Research Promotion Scheme of AICTE – **By Dr SK Maharana**

University Rank Holders

2006-07



SRINIVASAN .S

M.Tech. in
Aeronautical
Engineering

1st Rank (82.40%)



VELVENDAN .R

M.Tech. in Aeronautical
Engineering

2nd Rank (81.30%)



KANAKA MUTTU

M.Tech. in
Aeronautical
Engineering

3rd Rank (80.75%)

2007-08



**VINAY PRADEEP
NADKARNI**

M.Tech. in
Aeronautical
Engineering

1st Rank (82.20%)

2008-09



**RAGIT
RAJAGOPALAN**

M.Tech. in
Aeronautical
Engineering

1st Rank (86.65%)



DEEPA .M.S

M.Tech. in
Aeronautical
Engineering

2nd Rank (83.80%)



ROHITH .S

M.Tech. in
Aeronautical
Engineering

3rd Rank (83.55%)

2009-10



SESHA SHAYAN A

M.Tech. in
Aeronautical
Engineering

1st Rank (84.17%)



NAGALINGESHWARA.V

M.Tech. in
Aeronautical
Engineering

2nd Rank (82.17%)



RAJEEVA K T

M.Tech. in
Aeronautical
Engineering

3rd Rank (81.42%)

University Rank Holders

2010-11



SUPREETH. R

M.Tech. in
Aeronautical
Engineering
1st Rank (82.79%)
GOLD MEDALIST



RAMESH N.G

M.Tech. in
Aeronautical
Engineering
2nd Rank (80.46%)



PROMIO CHARLES.F

M.Tech. in
Aeronautical
Engineering
3rd Rank (79.67%)