

AVEEDIBYA DEY

PERSONAL INFORMATION:

Name **DEY, AVEEDIBYA**
Present Address **166 Kapili Hostel, IIT Guwahati, Guwahati – 781039, Assam, India**
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E-mail **aveedibya@iitg.ernet.in , sagardey89@gmail.com**
Nationality **Indian**
Languages Known **English, Hindi, Bengali, French (learning)**
Date of birth **12th August, 1989**

RESEARCH INTERESTS:

- Traffic Engineering and Transportation Planning
- Traffic Flow Theory and Modeling
- Application of Neural Networks and Fuzzy Logic System
- Image Processing, simulation, optimization and filtering techniques

EDUCATION AND TRAINING:

- Dates (from – to) **2007 – 2011**
- Name and type of institution **Department of Civil Engineering,
Indian Institute of Technology (IIT) Guwahati, Assam, India**
- Title of qualification awarded **Bachelor of Technology**
• CGPA **7.84/10 (at the end of 4 semesters)**
Departmental Rank – 6/40

SOFTWARE SKILLS:

MATLAB, VISSIM, AIMSUN, AUTO-CAD, SOLID-WORKS, ADAMS, SOLID EDGE, Microsoft Office, C/C++, WINDOWS & LINUX OS

PUBLICATIONS:

Dey, Avedibya and Ravi Shankar, K V R, "Neural Network based Car-Following Model" in the Proceedings of the **International Conference on Materials Mechanics and Management** to be held from 14-16 January, 2010 at Thiruvananthapuram, Kerala, India. (Accepted for publication)

SEMINARS:

Presented a seminar on "Behavior of Steel Columns in Fire with partial damage to fire protection" as a partial requirement for the fulfillment of *CE-305: Design of Steel Structures* course.

PROJECTS:

- Dates (from – to) **September 2009 – till date**
- Title **To develop of a modified car-following model to incorporate the effect of lateral vehicular movement.**
- Guide **Dr. C Mallikarjun, Senior Lecturer, Dept. Of Civil Engineering, IIT Guwahati**
- Type **Own Interest**
- Brief Synopsis **The Car-Following Behavior takes into account two consecutive vehicles moving one after the other. But in practical situation, the vehicles travelling sideways/parallel, to the vehicle in consideration also influences its behavior. The aim is to develop a model which can take into account this aspect as well in addition to the existing relationships.**
- Dates (from – to) **1st June 2009 – 20th July 2009**
- Title **Simulation of Car Following Behaviour in MATLAB using radial-basis Neural Networks**
- Guide **Dr. Tom V Mathew, Associate Professor, Dept. of Civil Engineering, IIT Bombay**
- Type **Summer Internship (Conference Paper)**

- Brief Synopsis Simulated various heterogenous-traffic behaviors using Neural Networks in MATLAB and compared the results with the observed data and mathematical models of car-following behavior. Optimization and Filtering of networks was also done to minimize errors and an index-system was developed to incorporate combination of various vehicle types in a single network.
- Dates (from – to) 1st June 2009 – 20th July 2009
 - Title **Elementary road traffic network generation and simulation using AIMSUN**
 - Guide Dr. Tom V Mathew, Associate Professor, Dept. of Civil Engineering, IIT Bombay
 - Type Summer Internship
- Brief Synopsis Developed elementary road networks using AIMSUN, a Transport Simulations Software(TSS) product, and carried out simulations under various given circumstances. Data Calibration and output data comparison with field results was also done.
- Dates (from – to) Feb 2009 – April 2009
 - Title **Developing road traffic networks and simulation using VISSIM**
 - Guide Dr. Ashish Verma, Assistant Professor, Dept. of Civil Engineering, IIT Guwahati (currently Dept. of Civil Engineering, IISC Bangalore)
 - Type Own Interest
- Brief Synopsis Developed road traffic networks using VISSIM, a Ptv product, and generated outputs for various simulations accounting for microscopic and macroscopic behaviour of traffic flow.
- Dates (from – to) August 2008 – September 2008
 - Title **Semi- Autonomous Shortest Path Following Robot**
 - Type Techniche'08 – Semi-Autonomous Robotics Competition
- Project Hosted at <http://sourceforge.net/projects/cheapest-pathde>
- Brief Synopsis The Robot designed is an Automated Guided Vehicle (AGV), designed to identify and follow a path from a maze viz. basically a colored checkerboard. Image-Processing and robot guidance was done using MATLAB. The code is uploaded in the above link.
- Dates (from – to) Jan 2009 – Apr 2009
 - Title **Vocational Training at National Thermal Power Corporation (NTPC) Ltd, VSTPS**
 - Type Industrial Training
- Brief Synopsis The basic aim of the training was to familiarize with the functioning of a coal-based thermal power plant with a special emphasis on the aspects of civil engineering that goes into the automation, control and monitoring of various modules of power generation.

ACHIEVEMENTS / AWARDS:

- Ranked among the top 1% of the students in the IIT Joint Entrance Examination (JEE)-2007; IIT-JEE AIR-2770.
- Cleared the prelims and selected for the personal interview by Indian Statistical Institute, Bangalore.

AFFILIATIONS / RESPONSIBILITIES:

- 1) Member of the Executive Council of the Association of Civil Engineers(ACE), a student body of Dept. of Civil Engineering, IIT Guwahati and currently holding the post of General Secretary-Publications, ACE, IIT Guwahati for the session 2009-10.
- 2) Core Team Member of Technothlon-Techniche'09, the annual techno-management festival of IIT Guwahati.

REFERENCES:

Available upon Request.