

# Subasish Das

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## Education

University of Louisiana at Lafayette

LAFAYETTE, LOUISIANA

**PhD in Transportation Systems Engineering; cgpa: 4.00/4.00**

Summer 2015 (expected)

Coursework: Transportation planning, Advanced Topics in Transportation Planning, Engineering Systems, Systems Engineering II, Lean Six Sigma, Linear Programming, Advanced topics in Transportation Systems Engineering.

University of Louisiana at Lafayette

LAFAYETTE, LOUISIANA

**Master Degree in Mathematics; cgpa: 3.83/4.00**

Spring 2015 (expected)

Coursework: Regression Analysis, Design of Experiment, Mathematical Statistics, Sampling Theory, Categorical Data Analysis, Non-parametric Statistics, Advanced Theory of Non-parametric Statistics, Applied Multivariate Analysis, Linear Models, Operation Research, Econometrics.

University of Louisiana at Lafayette

LAFAYETTE, LOUISIANA

**Master Degree in Civil Engineering; cgpa: 4.00/4.00**

2012

Coursework: Highway Safety Engineering, Transportation Materials, Traffic Flow Theory and Control, Pavement Design and Management, Engineering Project Management, Engineering Economics.

Bangladesh University of Engineering and Technology

DHAKA, BANGLADESH

**Bachelor Degree in Civil Engineering; First Class**

2007

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## Awards

**2015:** Gulf Region ITS (GRITS) Scholarship, Travel grant for attending 94<sup>th</sup> TRB Annual Meeting

**2014:** 2014 SASHTO Outstanding Graduate Research Award, Travel grant for attending 93<sup>th</sup> TRB Annual Meeting, Travel grant for attending 55<sup>th</sup> TRF Annual Meeting.

**2013:** 2013 Gulf Region ITS (GRITS) Scholarship First Place Award, Travel grant for attending 92<sup>nd</sup> TRB Annual Meeting.

**2011, 2012, 2013, 2014:** Deep South Institute of Transportation Engineers Scholarship

**2012:** Travel award for 9th Postgraduate Academic Forum of Beihang University, China

**2012:** UL Engineering Designing Leader

## Certifications

### Transportation Engineering

1. Using IHSDM (National Highway Institute), 2. Road Safety 101, 3. Protecting Human Research Participants for SHRP2 (National Institute of Health), 4. Using ArcMap in ArcGIS Desktop 10 (Esri), 5. Using Python in ArcGis ios Device (Esri).

### Data Science and Web Analytics

1. Specialization Certificate in Data Science (John Hopkins University), 2. Introduction to Complexity (Santa Fe Institute), 3. Big Data and Social Physics (edX), 4. MongoDB for Java Developers (MongoDB University)

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## Work Experience

University of Louisiana at Lafayette

LAFAYETTE, LOUISIANA

**Research Assistant**

Jan '10 – present

Worked as a key researcher of five state funded research projects under the supervision of Dr. Xiaoduan Sun. The Research Advisory Committee of the American Association of State Highway Transportation Officials has selected our research project (Safety Improvement from Edge Lines on Rural Two-Lane Highways / A Comprehensive Study on Pavement Edge Line Implementation) as one of its **High Value Research Projects for 2014**. Co-authored the final report of the project with my supervisor. My masters thesis "Evaluating Safety Improvement from Edge Lines on Rural Two-lane Highways" was also based on this award winning project. Also co-authored other two FHWA research reports. Contributed partially in the other two research projects as a co-author and researcher. Worked as a coordinator of Southern District ITE (SDITE) 2011 Annual Meeting in Lafayette, Louisiana. Started to work on two new LADOTD projects: 1. Developing a Method for Estimating Traffic Volumes on Local Roads in Louisiana, 2. User Sentiment Analysis with Louisiana Social Media Data for Better and Effective Crash Countermeasures.

### Teaching Assistant

Aug '12 – May '14

Worked as teaching assistant under Dr. Md. Jamal Khattak and Dr. Xiaoduan Sun. Graded assignments for two courses: 'Pavement Design and Management' and 'Highway Materials'. Taught graduate level course 'Highway Safety Engineering'. Instructor of Interactive Highway Safety Design Model (IHSDM) course for five semesters. Coordinated to arrange Gulf Region ITS (GRITS) 2014 Spring Workshop in University of Louisiana.

### Hennessey LLC

DUBAI, UNITED ARAB EMIRATES

#### Quantity Surveyor

May '08 – Jun '09

My job responsibilities: quantity survey as per design drawings, BOQ (Bill of quantity) preparation.

### Mak Estate Developments Ltd.

DHAKA, BANGLADESH

#### Project Engineer

Jun '07 – May '08

My job responsibilities: design of 12m-50m high Steel Towers for telecom sector, make materials requisition form and inform to purchase department, BOQ check, project management.

## Research Experience

### University of Louisiana at Lafayette

LAFAYETTE, LOUISIANA

#### LTRC Transportation Innovation for Research Exploration (TIRE) Project

May '14 – present

My tasks: data analysis, model development and validation, field study, report writing.

#### Louisiana Local Road AADT Project

Jan '14 – present

My tasks: JSON Data Collection, Data Wrangling, Senti-lexicon design, Sentiment Analysis, Social Media Mining.

#### Sentiment Analysis Project

May '13 – present

My tasks: social media data collection, senti-lexicon development, algorithm improvement.

#### Multiple Correspondence Analysis Project

May '13 – Aug '13

My tasks: literature review, cluster analysis, non-parametric statistical modeling, paper writing.

#### Edge Line Project

Jul '12 – Jul '13

This study was recently announced by the AASHTO Research Advisory Committee (RAC) as being awarded a spot on its **2014 Sweet Sixteen High Value Research Projects** list. I conducted the data analysis part of this project. I co-authored the final report of this project with my supervisor Dr. Xiaoduan Sun.

#### Louisiana Inexpensive Crash Countermeasure Project

Jan '11 – Jan '13

My tasks: data analysis, data visualization, online analytical processing (OLAP), report writing.

#### Louisiana Crash Modification Factor Project

Jan '10 – Jul '12

My tasks: literature review, CMF development, data visualization, report writing.

## Peer-Reviewed Journal Publications

### Transportation Research Record

DEC, 2014

Xiaoduan Sun, **Subasish Das**, Zhongjie Zhang, Fan Wang, Charles Leboeuf Vol. 2433, pp. 121-128

Investigating Safety Impact of Edge Line on Narrow Rural Two-Lane Highways by Empirical Bayes Method.

### Subasish Das, Xiaoduan Sun

Accepted

Estimating the Likelihood of Future Crashes for the Crash Prone Drivers.

### Journal of Traffic and Transportation Engineering

JAN, 2015

#### Subasish Das, Xiaoduan Sun, Fan Wang, Charles Leboeuf

In Press

Factor Association using Multiple Correspondence Analysis in Vehicle-pedestrian Crashes.

### Materials and Structures

MAY, 2014

Mohammad J. Khattak, Ahmed Khattab, Hashim R. Rizvi, **Subasish Das**, Mohammad R. Bhuyan

Imaged-based discrete element modeling of hot mix asphalt mixtures.

### Journal of Transportation Technologies

JAN, 2014

Xiaoduan Sun, **Subasish Das**, Yulong He

Vol. 4, No. 1, pp. 93-100

Analyzing Crash-Prone Drivers in Multiple Crashes for Better Safety Educational and Enforcement Strategies.

### International Journal of Engineering Research and Innovation

DEC, 2013

**Subasish Das**, Xiaoduan Sun, Yulong He, Fan Wang, Charles Leboeuf

Vol. 5, No. 2, pp. 74-80

Investigating the Safety Impact of Raised Pavement Markers on Freeways in Louisiana.

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## Federally Funded Project Reports

### Louisiana Transportation Research Center (LTRC) Projects

- Xiaoduan Sun, **Subasish Das** *Report No. FHWA/LA.15/14-3SA ; In Press*  
Developing a method for estimating AADT on all Louisiana roads.
- Xiaoduan Sun, **Subasish Das** *Report No. FHWA/LA.13/508 ; Apr, 2014*  
A Comprehensive Study on Pavement Edge Line Implementation.
- Xiaoduan Sun, **Subasish Das** *Report No. FHWA/LA.12/506; Oct, 2013*  
Developing Crash Modification Factor for Louisiana.
- Xiaoduan Sun, **Subasish Das** *Report No. FHWA/LA.11/487; May, 2011*  
Safety Improvement from Edge Lines on Rural Two-Lane Highways.
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## Peer-Reviewed Conference Proceedings

### Transportation Research Board 94th Annual Meeting

JAN. 11-15, 2015, WASHINGTON DC

#### Four Poster Presentations

1. Factor Association using Multiple Correspondence Analysis in Vehicle-pedestrian Crashes,
2. Zero-Inflated Models for Different Severity Types in Rural Two-Lane Crashes,
3. Lane Conversion for Urban Roadway: An Unideal but Effective Way to Improve Roadway,
4. Determining the Knowledge Gap in Performance Based Analysis of Geometric Design and Condition Incorporating Safety.

### SASHTO 2014 Annual Conference

AUG. 23-27, 2014, NEW ORLEANS, LA

#### Outstanding Graduate Student Poster Presentation

- Analyzing At-fault Crash-Prone Drivers of Louisiana associated with Multiple Crashes

### 55th Annual Transportation Research Forum

MAR. 13-15, 2014, SAN JOSE, CA

#### One LECTERN Session

- Sentiment Analysis of the Riders of the Bike Sharing Programs

#### One Poster Presentation

- Association Rules Mining on the Ridership Data of a Bike Sharing Program

### Transportation Research Board 93rd Annual Meeting

JAN. 12-16, 2014, WASHINGTON DC

#### Three Poster Presentations

1. Investigating the Pattern of Traffic Crashes Under Rainy Weather by Data Mining,
2. Exploring Clusters of Contributing Factors for Single-Vehicle Fatal Crashes Through MCA,
3. Investigating Safety Impact of Edge Line on Narrow Rural Two-Lane Highways by EB Method.

### Transportation Research Board 92nd Annual Meeting

JAN. 13-17, 2013, WASHINGTON DC

#### Three Poster Presentations

1. Analyzing Crash-Prone Drivers in Multiple Crashes,
  2. Investigating the Safety Impact of Raised Pavement Markers,
  3. Crash Modification Factor for an Inexpensive yet Very Cost Effective Safety Improvement: Converting 4U to 5T.
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## Synergistic Activities

**Member :** ITE, Phi Kappa Phi Honor Society, ASCE.

**Reviewer:** International Conference on Computing Technology and Information Management (ICCTIM2014), Transportation Research Board ANB20 (Highway Safety Performance).

**Conference Attendance:** SASHTO 2014 Annual Conference (*New Orleans, LA*), Gulf Region ITS Spring 2014 Regional Workshop (*Lafayette, LA; 2014*), Transportation Research Forum Annual Meeting (*San Jose, CA; 2014*), Transportation Research Board (TRB) Annual Meeting (*Washington DC; 2011, 2012, 2013, 2014, 2015*), Louisiana Transportation Conference (*Baton Rouge, LA; 2011, 2013*), Gulf Region ITS Annual Meeting (*New Orleans, LA, 2013*), Southern District ITE Annual Meeting (*Lafayette, LA; 2011*).

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## Reference

- Dr. Xiaoduan Sun :** Professor, Civil Engineering Dept., UL Lafayette. xsun@louisiana.edu; 3374826514
- Dr. Jim Lee:** Assistant Dean, Graduate Studies, UL Lafayette. jxl3430@louisiana.edu; 3374825354
- Dr. L. L. Novelo:** A. Professor, Bio-statistics, UT Houston. luis.g.leonnovelo@uth.tmc.edu; 7135009573
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