Road Accident Sampling System - India (RASSI): India's first in-depth scientific accident database

Pune, IndiaCoimbatore, India
Ravishankar Raj...

Year Founded: 2011
Organization type: hybrid
Project Stage: Scaling
Budget: $500,000 - $1 million
Website: http://www.jpresearchindia.com/rassi.html

- Medical Research
- Corporate social responsibility
- Transportation

Project Summary

Elevator Pitch

Concise Summary: Help us pitch this solution! Provide an explanation within 3-4 short sentences.

Road Accident Sampling System - India (RASSI) is an initiative to create an in-depth road traffic crash database through on-site crash investigations that will help governments, industry, consumer groups and citizens make more informed and data-driven decisions to improve road safety in India.

WHAT IF - Inspiration: Write one sentence that describes a way that your project dares to ask, "WHAT IF?"

our journeys could be made safer through data-driven, cost-effective strategies?

About Project

Problem: What problem is this project trying to address?

India’s staggering record of traffic fatalities has created an urgent need to understand, and mitigate, the factors involved in these crashes. But understanding relies on having quality, in-depth and scientific data available for analysis. Such data is not available due to lack of accident investigation and reconstruction skills in the police force, and poor data collection and reporting capabilities in the government.

Solution: What is the proposed solution? Please be specific!

Road Accident Sampling System - India (RASSI) is an on-site crash investigation and in-depth accident data collection program. This is conducted in co-operation with the police and ambulance agencies who notify researchers about an accident. Researchers, on reaching the crash scene, use internationally accepted methodologies customized for Indian conditions to examine crashes, collect data scientifically, and identify the factors that caused the accident and the resulting injuries. The analyzed data is reported to the government and industry to enable them to make data-driven decisions and come up with cost-effective measures to reduce accidents and injuries.

Impact: How does it Work

Example: Walk us through a specific example(s) of how this solution makes a difference; include its primary activities.

The Mumbai-Pune Expressway has been seeing a spate of accidents over the past few years. Lack of in-depth accident data restricted the government agencies from pin-pointing the exact problems to be solved, which resulted in simply blaming driver errors. With the help of RASSI, 214 accidents were examined and it was found that apart from over speeding, factors that also influence accidents were driver sleep/fatigue (29%), brake fade in trucks (11%), lack of road signage and information (9%). In addition, it was found that lack of seat belt use (46%), passenger compartment intrusion (73%) and dangerous roadside structures (28%) led to fatal/serious accidents. Such data helps governments save lives...
through cost-effective decisions & solutions.

Impact: What is the impact of the work to date? Also describe the projected future impact for the coming years.

RASSI data helps the local police, governing authorities and automotive companies understand road safety issues, specific to India, better and identify cost-effective solutions to improve road safety in India. In Tamil Nadu, the issue of undivided roads leading to head-on collisions has been raised. Divided roads too have been analyzed to understand areas of improvement. In Maharashtra, the RASSI data is being used by the State Highway police to help improve road conditions and enforcement on the Mumbai-Pune Expressway. In Gujarat, the govt road safety committee is using RASSI for examining accidents in Ahmedabad. In addition, RASSI is also helping automotive manufacturers come up with safer vehicles for India. As RASSI scales up and grows to include more areas across India, the data generated can help the central government agencies to impact road safety at a national level.

Spread Strategies: Moving forward, what are the main strategies for scaling impact?

Data-driven road safety strategies have proven to be highly effective in mitigating fatalities and injuries around the world. As RASSI scales up and grows to include more areas across India, the full impact of this program will be to use scientific data to help government regulators, police, vehicle manufacturers, insurance companies, NGOs and other transportation related agencies to direct and review efforts for improving road safety/risk across India. Once India adopts a data-driven approach to road safety, our journeys will surely become safer in the near future.

Financial Sustainability Plan: What is this solution’s plan to ensure financial sustainability?

Currently RASSI is being marketed only to OEMs who fund this initiative in return for quality data for their vehicle safety engineering and development. Eventually, government participation in the RASSI consortium will help scale up and sustain the accident data collection activities on a national level. Agencies such has NATRIP, ARAI and SIAM are already being engaged.

Team

Founding Story

RASSI evolved from a project that was conceived and implemented to address the lack of in-depth scientific accident data in India. JP Research engineers conducted pilot studies from 2008-2010 in the districts of Kanchipuram and Coimbatore with the cooperation of the Tamil Nadu State Police to ensure on-scene, in-depth data collection was possible in India. Later effort was extended to develop standardized in-depth data collection on vehicle accidents (including computerized database development). In 2011, the RASSI consortium was established to obtain financial and technical support. Currently, RASSI consortium members include: JPR-USA, Daimler AG, Robert Bosch GmbH, Nissan Motor Company, Renault SAS and Hyundai Kia Motor Company.

Team

Mrs. Jeya Padmanaban, a statistician and an automotive safety expert in the USA, leads this initiative. Mr. Ajit Dandapani, a computer scientist, manages the database development and administration in addition to marketing and finance of RASSI. In India, a team of 25 crash investigators with degrees in mechanical/automobile engineering work full time to investigate crashes, collect data and reconstruct accidents in Coimbatore, Pune and Ahmedabad.

About You

First Name
Ravishankar

Last Name
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Twitter URL

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About Your Project

Organization Name

How long has your organization been operating?
Please select

The information you provide here will be used to fill in any parts of your profile that have been left blank, such as interests, organization information, and website. No contact information will be made public. Please uncheck here if you do not want this to happen.

Project

Organization Country
, TN, Coimbatore

Country where this project is creating social impact
, MM, Pune

What awards or honors has the project received?

Funding: How is your project financial supported?

Businesses.
Supplemental

Partnerships

RASSI Consortium Members who provide financial and technical support, and also use the data.
1. JP Research, Inc.
2. Robert Bosch GmbH
3. Daimler AG
4. Nissan Motor Company
5. Renault SAS
6. Hyundai KIA Motors
7. Honda Car India

How does your idea encourage citizens to participate in making roads safer?

On-site crash investigations and in-depth accident data collection helps researchers not only to identify factors (sleep, over speeding, belt use, road defect, etc.) that contribute to road accidents, but also to estimate their percentage influence on accidents and injuries. Citizens, when made aware of contributing factors, can take steps to correct/avoid such mistakes in the future and to use safety systems.

Barriers: What barriers might hinder the success of your project and how do you plan to overcome them?

Poor government co-operation and slow accident notification support from police and ambulance services can hamper the data collection efforts. These problems are being overcome through proper training and education, increasingly good cooperation from agencies involved, and the use of communication technology such as text messaging and Whatsapp.

Additional Information

Peer-reviewed papers published regarding RASSI are listed and linked at: http://www.jpresearchindia.com/papers.html

Is your project targeted at solving any of the following challenges?

Governance: Projects that address public policy, legal, and/or regulatory issues in the area of road safety, Infrastructure: Projects that address road or administrative infrastructure, emergency care, or financial systems.

Would you like your project to be considered for the Bangalore People’s Choice Prize?

Yes

If yes, how is your project applicable to the Bangalore context?

In-depth accident data collection in Bangalore will help the local government authorities plan their road safety investments better and provide more effective solutions for mitigating injuries and accidents based on conditions specific to Bangalore. The Mumbai-Pune Expressway report for Year 1 of that project is an example of what such a project could offer (see recent newsletters at http://www.jpresearchindia.com/newsletter.html).

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