

Abstract

This is the abstract for my master's thesis. Here is some text for formatting.

At least 18 people have been killed and dozens trapped in the Indian city of Varanasi after a flyover collapsed, crushing vehicles beneath it. The flyover was still being built when portions of its cement structure fell on the road being used under it. Officials from the National Disaster Response Force said 18 bodies had been recovered so far. A rescue operation is continuing for those believed to still be trapped, but their number and condition is unknown. Photographs and video from the scene showed cars and a bus crushed beneath the weight of the concrete, many of which still held people inside. Local media reported that a handful of people had been successfully rescued, as seven cranes attempted to lift the concrete pillar. A large crowd also gathered at the scene. One eyewitness told reporters they were nearby when the collapse happened. "At least four cars, an auto-rickshaw and a minibus were crushed under it," they said.

India's NDTV also reported that many of those trapped are believed to be construction workers who had been building the flyover. The cause of the collapse is not yet known, and an inquiry has been ordered, NDTV added. Major collapses of buildings and other infrastructure are not uncommon in India, where the enforcement of construction standards is weaker than many Western countries. In September, 33 people died when a six-storey Mumbai building toppled and more than 20 people died in 2016 when a flyover collapsed in Kolkata. Other collapses with smaller death tolls are frequent. Varanasi is the home constituency of India's Prime Minister Narendra Modi, who said he was "extremely saddened by the loss of lives due to the collapse". "I pray that the injured recover soon. Spoke to officials and asked them to ensure all possible support to those affected," he tweeted.

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Formal Methods

Functional Programming

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Other Interactive Theorem Provers

Chapter 3

Systems Security Engineering

3.1 NIST Special Publication 800-160

3.2 Verification & Documentation

3.3 Principle of Complete Mediation

3.3.1 Formal Verification Using Computer-Aided Reasoning

Chapter 4

Patrol Base Operations

This is the future works section. But, as I am typing this, it is the current working section for L^AT_EX. The point here is to get the margins in order. This means that there must be text of sufficient length to visually verify that the text meets LORI's standards. LORI is complying with SU standards for the senior thesis. Therefore, meeting LORI's standards is synonymous with meeting SU's standards. Resistance will only degrade you.

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7.4 Other Verifiable Theories

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Chapter 8

Future Work & Implications

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8.1 The Devil Is in The Details

Of course, there are top margins and bottom margins. This means that we'll need more text. You know, the best way to generate text is to just cut-n-paste some random stuff. Perinton, N.Y. – The FBI conducted a search of Morgan Management LLC's offices in Monroe County Monday as part of an ongoing investigation into the development company's business practices, according to Rochester area media reports.

Agents were seen carrying boxes in and out of the company's headquarters at 1080

Pittsford Victor Road in the town of Perinton, according to the reports.

An FBI spokeswoman confirmed that agents conducted "court-authorized activity at 1080 Pittsford Victor Road," the Democrat & Chronicle reported. The company's founder, developer Robert Morgan, was in the office as agents conducted the search, the newspaper said.

The newspaper reported in September that a federal investigation is focused on bank loans to Morgan's real estate portfolio, which, according to the company's website, has grown to 140 properties and more than 34,000 apartment units across 14 states since the company's founding in 1979.

The investigation is centered largely on Buffalo-region apartment complexes purchased by Morgan's companies and whether the information the company gave lenders to obtain the loans was accurate, according to the newspaper.

However, the Buffalo News reported in March that the investigation includes a look at Morgan's purchase of the Rugby Square apartment complex on Dorchester Avenue in Syracuse. One of Morgan's companies borrowed \$5.56 million to buy the apartment complex in a distress sale in 2012, then obtained a new \$9 million mortgage on the property just 10 months later after reporting a major turnaround of the complex, the newspaper said.

Morgan has said his companies have done nothing illegal to obtain financing. No charges have been filed in connection with the investigation.

According to the company's website, Morgan operates 13 apartment complexes in the Syracuse area.

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Appendices

Appendix A

Access Control Logic Theories in HOL

Appendix B

Secure State Machine Theories Applied to Patrol Base Operations

Appendix C

Pretty-Printed Theories

Appendix D

Map of The File Folder Structure

References

- [1] Shiu-Kai Chin and Susan Beth Older. *Access Control, Security, and Trust: A Logical Approach*. Chapman & Hall: CRC Cryptography and Network Security Series. Chapman and Hall/CRC, July 2010.