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*Irwan Suranta Sembiring S.T., M.T. dilahirkan di Medan pada tanggal 09 April 1979 merupakan seorang dosen Sipil di Universitas Sumatera Utara. Beliau menyelesaikan pendidikan terakhirnya yakni S2 Teknik Sipil di USU pada tahun 2008.*

## Publications

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2026

Prosiding seminar internasional

### **Sinabung Volcanic Ash Utilization As The Additive for Paving Block Quality A and B**

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2026

Prosiding seminar internasional

### **Evaluation of toll rates based on ATP/WTP and BKBOOK case studies: Medan-Binjai and Medan-Tebing Tinggi toll roads**

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2026

Prosiding seminar internasional

### **The utilization of volcanic ash and high Rusk ash as material stabilization in clay by unconfined compression test (UCT) and California bearing ratio (CBR)**

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2023

Prosiding seminar internasional

### **Utilization of Sinabung volcanic ash and lime as cement substitution materials in paving block manufacturer**

M RIDWAN ANAS , IRWAN SURANTA SEMBIRING , IKA PUJI HASTUTY

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2019

Prosiding seminar internasional

### **Study of container truck movement in Tanjung Priok Port, Jakarta-Indonesia**

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2026

Prosiding seminar internasional

### **The Effect of the Placement of the Roughometer III Sensor on the Result of the IRI Values on National Roads**

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2022

Jurnal internasional bereputasi

### **An Evaluating of the Broader Economic Benefit of the Medan-Binjai Toll road on National Highway**

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2026

Prosiding seminar internasional

## **Comparison of compressive strength of paving block with a mixture of Sinabung ash and paving block with a mixture of lime**

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2026

Prosiding seminar internasional

### **The economic benefit of toll road investment on the performance of the industry sectors in West Java Province**

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### **Measuring regional cohesion effects of new toll roads investments: an accessibility approach**

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2026

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### **Evaluation of paratransit performance as public transport in Medan City**

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2023

Prosiding seminar internasional

### **Mapping the overlapping paratransit route in Medan City using GIS**

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2026

Prosiding seminar internasional

### **A study of container truck movement in Tanjung Priok port, Jakarta, Indonesia**

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2026

Prosiding seminar internasional

### **GIS for USU campus transportation asset management**

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2026

Jurnal internasional bereputasi

### **Study of determining the toll fare for the Yogyakarta-Solo corridor**

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2026

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### **Passenger car equivalents of becak bermotor at road segment in Medan**

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## **Researches**

2016

Penelitian Unggulan Perguruan Tinggi

### **Pemanfaatan abu Gunung Sinabung dan sekam padi sebagai bahan stabilisator pada lempung dengan UCT dan CBR**

IRWAN SURANTA SEMBIRING , IKA PUJI HASTUTY

2017

Penelitian Hibah Bersaing

### **Pemanfaatan abu Gunung Sinabung dan kapur sebagai bahan campuran pembuatan paving block**

IRWAN SURANTA SEMBIRING , NURSYAMSI , IKA PUJI HASTUTY

2016

Penelitian Hibah Bersaing

### **Pemanfaatan abu Gunung Sinabung sebagai bahan campuran pembuatan paving block**

2021

Penelitian Dosen Pemula

## **PENELITIAN TALENTA USU SKEMA PENELITIAN DOSEN MUDA**

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## **Community Services**

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2018

### **Pendampingan Kepolisian**

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2023

### **Pendampingan Kejaksaan Tinggi Tebing Tinggi dalam kegiatan Preservasi Jalan di Tebing Tinggi**

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2022

### **Pendampingan Kejaksaan Negeri Langkat pada Pengerjaan satu unit Sumur Bor yang terletak di dusun II Pasiran Desa Halabantak**

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2022

### **Pendampingan Kejaksaan Negeri Pematang Siantar terhadap Pekerjaan Pembangunan Jalan dan Jembatan STA 09+310 - STA 10+150 di Jalan Outer Ring Road Kota Pematang Siantar**

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2023

Ipteks Bagi Masyarakat

### **Pendampingan Kejaksaan Negeri Pematang Siantar**

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