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*Irwan Suranta Sembiring S.T., M.T., born in Medan on April 09, 1979, is a Civil lecturer at the Universitas Sumatera Utara. He completed his master's degree in Civil Engineering at USU in 2008.*

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## Publications

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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

2023

Prosiding seminar internasional

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

IRWAN SURANTA SEMBIRING

2022

Jurnal internasional bereputasi

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

M RIDWAN ANAS , IRWAN SURANTA SEMBIRING

2019

Prosiding seminar internasional

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

M RIDWAN ANAS , IRWAN SURANTA SEMBIRING

2026

Prosiding seminar internasional

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

IRWAN SURANTA SEMBIRING

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)**

IRWAN SURANTA SEMBIRING

2026

Prosiding seminar internasional

### **The Effect of the Placement of the Roughometer III Sensor on the Result of**

## the IRI Values on National Roads

IRWAN SURANTA SEMBIRING

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**

IRWAN SURANTA SEMBIRING

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

Prosiding seminar internasional

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

IRWAN SURANTA SEMBIRING

2026

Prosiding seminar internasional

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

IRWAN SURANTA SEMBIRING

2026

Prosiding seminar internasional

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

IRWAN SURANTA SEMBIRING

2026

Jurnal internasional bereputasi

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

IRWAN SURANTA SEMBIRING

2026

Prosiding seminar internasional

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

IRWAN SURANTA SEMBIRING

## Researches

2021

Penelitian Dosen Pemula

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

IRWAN SURANTA SEMBIRING

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 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

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2016

Penelitian Hibah Bersaing

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

IRWAN SURANTA SEMBIRING , IKA PUJI HASTUTY

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## **Community Services**

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2023

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

IRWAN SURANTA SEMBIRING

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2023

Ipteks Bagi Masyarakat

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

IRWAN SURANTA SEMBIRING

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2022

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

IRWAN SURANTA SEMBIRING

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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**

IRWAN SURANTA SEMBIRING , INDRA JAYA PANDIA

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2018

### **Pendampingan Kepolisian**

M RIDWAN ANAS , IRWAN SURANTA SEMBIRING

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