Invention Title: **Data-Diode Driven Secure Intersection Data Acquisition for Enabling Connected Autonomous Vehicle Operations**

PRF Reference No: **2024-KROG-70515**

Funding Listed: **USDOT** Is this Funding Correct: 🗹 Yes □ No, it should be:

***To help us understand your technology, please fill in the blanks:***

**Our** End-to-end IoT system design,

Potential product and/or service

**help(s)** Department of Transportation and Smart Traffic Management Companies,

Potential customer

**who want to** enable drivers with prior information about future traffic light status.

ex: job to be done

**by** providing real time light status on the driver’s handheld device

ex: reducing a customer pain

**and** enable drivers make informed decision will in advance.

ex: a customer gain

**unlike** other machine learning based solutions that ‘predict’ the light change using past information, involving a certain degree of uncertainty

competing value proposition

**PLEASE PROVIDE YOUR PREFERRED NAME TO BE USED ON PATENT APPLICATION DOCUMENTS and YOUR HOME ADDRESS (NOT CAMPUS BUILDING ADDRESS)**

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Purdue Information (pick one):

Faculty/Staff 🗹PhD Student

Visiting Scholar Graduate Student

Post Doc Graduate Student

Undergraduate Student Not Purdue - Where:

What Purdue department (add % affiliation), Discovery Park center, etc. should get credit for this disclosure?

1). Electrical and Computer Engineering (100%)

2).

3).

Inventor:

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Undergraduate Student Not Purdue - Where:

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1). Electrical and Computer Engineering (100%)

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Visiting Scholar 🗹Graduate Student

Post Doc Graduate Student

Undergraduate Student Not Purdue - Where:

What Purdue department (add % affiliation), Discovery Park center, etc. should get credit for this disclosure?

1). Center for Connected and Automated Transportation (CCAT) (33%)

2). School of Civil Engineering (33%)

3). Electrical and Computer Engineering (33%)

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Visiting Scholar Graduate Student

Post Doc Graduate Student

Undergraduate Student Not Purdue - Where:

What Purdue department (add % affiliation), Discovery Park center, etc. should get credit for this disclosure?

1). Electrical and Computer Engineering (50%)

2). School of Civil Engineering (50%)

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Undergraduate Student Not Purdue - Where:

What Purdue department (add % affiliation), Discovery Park center, etc. should get credit for this disclosure?

1). School of Civil Engineering (50%)

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Visiting Scholar Graduate Student

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Undergraduate Student 🗹Not Purdue - US Department of Transportation

What Purdue department (add % affiliation), Discovery Park center, etc. should get credit for this disclosure?

1).

2).

3).