1. Project Title Florida International University - Traffic Analytic Solution

2. Senate Sponsor Alexis Calatayud

3. Date of Request 01/24/2024

4. Project/Program Description

FIU seeks to establish an innovative software system based on advanced artificial intelligence and data analytics technology in the municipality that will enable FIU and a partner municipality to analyze current conditions, to optimize traffic flow and transportation needs, to forecast and manage traffic congestion and to actualize future-oriented practices. The proposed solution leverages the existing traffic cameras and speed sensors available through the municipality's ATMS (Active Traffic Management System) and will deploy any necessary additional sensors to capture and fill any potential data gaps. The solution aims to monitor the real-time data coming from these traffic systems to detect abnormal traffic activities that might lead into more congestion or traffic accidents based on predictive models developed on historical data.

5. State Agency to receive requested funds Board of Governors

State Agency contacted? No

6. Amount of the Nonrecurring Request for Fiscal Year 2024-2025

Type of Funding	Amount
Operations	2,750,000
Fixed Capital Outlay	0
Total State Funds Requested	**2,750,000**

7. Total Project Cost for Fiscal Year 2024-2025 (including matching funds available for this project)

Type of Funding	Amount	Percentage
Total State Funds Requested (from question #6)	2,750,000	100%
Matching Funds		
Federal	0	0%
State (excluding the amount of this request)	0	0%
Local	0	0%
Other	0	0%
Total Project Costs for Fiscal Year 2024-2025	**2,750,000**	**100%**

8. Has this project previously received state funding? No

Fiscal Year (yyyy-yy)	Amount		Specific Appropriation #	Vetoed
	Recurring	Nonrecurring		

9. Is future funding likely to be requested? Yes

a. If yes, indicate nonrecurring amount per year. 750,000

b. Describe the source of funding that can be used in lieu of state funding.

Potential federal grants, local grants, and private philanthropic dollars.

10. Has the entity requesting this project received any federal assistance related to the COVID-19 pandemic?

No

If yes, indicate the amount of funds received and what the funds were used for.

Complete questions 11 and 12 for Fixed Capital Outlay Projects

11. Status of Construction

a. What is the current phase of the project?

○ Planning ○ Design ○ Construction ○ N/A

b. Is the project "shovel ready" (i.e permitted)?

c. What is the estimated start date of construction?

d. What is the estimated completion date of construction?

12. List the owners of the facility to receive, directly or indirectly, any fixed capital outlay funding. Include the relationship between the owners of the facility and the entity.

13. Details on how the requested state funds will be expended

Spending Category	Description	Amount
Administrative Costs:		
Executive Director/Project Head Salary and Benefits	University IDCs	250,000
Other Salary and Benefits		0
Expense/Equipment/Travel/Supplies/Other		0
Consultants/Contracted Services/Study		0
Operational Costs: Other		
Salary and Benefits		0
Expense/Equipment/Travel/Supplies/Other	Purchase and install any necessary sensors and sensor network to capture the adequate data required to deploy the analytic traffic models.	1,000,000
Consultants/Contracted Services/Study	Deploy an advanced software system, based on advanced artificial intelligence and data analytics technology that will enable the municipality to analyze existing traffic conditions, optimize traffic movements and public transportation routes, anticipate, and manage traffic congestion, and implement future applications.	1,500,000
Fixed Capital Construction/Major Renovation:		
Construction/Renovation/Land/Planning Engineering		0
Total State Funds Requested (must equal total from question #6)		**2,750,000**

14. Program Performance

a. What specific purpose or goal will be achieved by the funds requested?

The Traffic Analytic Solution project expects to rapidly improve public transportation and traffic movements in the partnered municipality, leading to new efficiencies related to traffic congestion management, bus, metro, metrobus and tram fleet operation, reduced environmental impact, improved fuel, and manpower allocation. FIU seeks to establish an innovative software system based on advanced artificial intelligence and data analytics technology in the municipality that will enable FIU and a partner municipality to analyze current conditions, to optimize traffic flow and transportation needs, to forecast and manage traffic congestion and to actualize future-oriented practices.

b. What activities and services will be provided to meet the intended purpose of these funds?

The University and municipality can expect to work to develop the ability to apply data science techniques to predict, cluster and optimize transportation data, including artificial intelligence, machine learning and data analytics technologies for the partner municipality. To reach this objective, the project covers the problems of forecasting transportation demand and traffic flow, optimization of public transport lines model and detection of traffic anomalies and congestions for optimization.

c. What direct services will be provided to citizens by the appropriation project?

The solution aims to monitor the real-time data coming from these traffic systems to detect abnormal traffic activities that might lead into more congestion or traffic accidents based on predictive models developed on historical data, in order to alleviate traffic congestion for citizens.

d. Who is the target population served by this project? How many individuals are expected to be served?

Citizens of Miami-Dade County.

e. What is the expected benefit or outcome of this project? What is the methodology by which this outcome will be measured?

To better detect, prepare and respond to recurring and non-recurring traffic congestions, to provide local municipalities with recommendations to reduce traffic. Failure to establish the Forecasting Transportation Demand and Traffic Flow models, Optimization of Public Transport Lines Model, and Detection of Traffic Anomalies and Congestions for Optimization.

f. What are the suggested penalties that the contracting agency may consider in addition to its standard penalties for failing to meet deliverables or performance measures provided for the contract?

Suggested penalties include withholding payments, barring third party technology firms from doing business with the State of Florida, and potential financial penalties owed to the State.

15. Requester Contact Information

a. First Name Kenneth **Last Name** Jesselll

b. Organization FIU

c. E-mail Address kjessell@fiu.edu

d. Phone Number (305)609-3171 **Ext.**

16. Recipient Contact Information

a. Organization FIU

b. Municipality and County Miami-Dade

c. Organization Type

☐For Profit Entity

☐Non Profit 501(c)(3)

☐ Non Profit 501(c)(4)

☐ Local Entity

☑ University or College

☐ Other (please specify)

d. First Name Kenneth **Last Name** Jesselll

e. E-mail Address kjessell@fiu.edu

f. Phone Number (305)609-3171

17. Lobbyist Contact Information

a. Name Christopher Cantens

b. Firm Name

c. E-mail Address ccantens@fiu.edu

d. Phone Number (305)348-3505