

# **Sparkman: A Smart Parking Management Tool For University Campuses**

**Dataset available at:** <https://doi.org/10.5281/zenodo.3834310>

(This dataset supports report **SPARKMAN: A Smart Parking Management Tool for University Campuses**)

This U.S. Department of Transportation-funded dataset is preserved by OpenAIRE in the digital repository Zenodo (<https://zenodo.org/>), and is available at <https://doi.org/10.5281/zenodo.3834310>.

The related final report **SPARKMAN: A Smart Parking Management Tool for University Campuses**, is available from the National Transportation Library's Digital Repository at <https://rosap.ntl.bts.gov/view/dot/56376>.

## **Metadata from the Zenodo Repository record:**

### Description:

PI Kelvin Cheu and his students have developed a total parking demand model for students and a “base price” model for student parking permits based on data gathered from an internet survey on parking at 208 university campuses across the United States. This project aims to develop a student parking lot zoning and zone permit pricing model, and then integrate the total demand model, “base price” model and the zoning model into a software tool named Sparkman, which can be used by all university parking offices.

### Keywords:

Sparkman; Smart Parking; Management; Level of Service

### Communities:

C2SMART Connected Cities with Smart Transportation

## **Dataset description:**

This dataset contains 1 .zip file collection described below.

### **SPARKMAN A Smart Parking Management Tool for University Campuses.zip:**

This collection contains 3 files and 2 files types, listed below.

- Aggregated Survey Results.pdf
- LOS criteria for parking search time.pdf
- Sparkman.mp4

### File Type Descriptions:

- The pdf file extension is first and foremost associated with Adobe Acrobat Portable Document Format (PDF) documents. Portable Document Format (PDF) is a file format proprietary to Adobe Systems for representing two-dimensional documents in a device

independent and resolution independent fixed-layout document format. Each PDF file encapsulates a complete description of a 2D document (and, with the advent of Acrobat 3D, embedded 3D documents) that includes the text, fonts, images, and 2D vector graphics that compose the document. PDF files do not encode information that is specific to the application software, hardware, or operating system used to create or view the document. This feature ensures that a valid PDF will render exactly the same regardless of its origin or destination (but depending on font availability). PDF files are most appropriately used to encode the exact look of a document in a device-independent way. While the PDF format can describe very simple one page documents, it may also be used for many pages, complex documents that use a variety of different fonts, graphics, colors, and images. (for more information on .pdf files and software, please visit

<https://www.file-extensions.org/pdf-file-extension>)

- The mp4 file extension is used mainly for the MPEG-4 multimedia file format. The MPEG-4 file format, as defined by the MPEG-4 specification, contains MPEG-4 encoded video and Advanced Audio Coding (AAC)-encoded audio content. It typically uses the mp4 file extension for its files. The .mp4 files support all kinds of multimedia content (multiple audio streams, video streams, subtitle streams, pictures) and advanced content (called "Rich Media" or "BIFS") like 2D and 3D graphics, user interactivity, DVD-like menus. The MP4 file format is also streamable. (for more information on .mp4 files and software, please visit <https://www.file-extensions.org/mp4-file-extension>)

**National Transportation Library (NTL) Curation Note:**

As this dataset is preserved in a repository outside U.S. DOT control, as allowed by the U.S. DOT's Public Access Plan (<https://doi.org/10.21949/1503647>) Section 7.4.2 Data, the NTL staff has performed *NO* additional curation actions on this dataset.

NTL staff last accessed this dataset at <https://doi.org/10.5281/zenodo.3834310> on 2021-07-15

If, in the future, you have trouble accessing this dataset at the host repository, please email [NTLDataCurator@dot.gov](mailto:NTLDataCurator@dot.gov) describing your problem. NTL staff will do its best to assist you at that time.