







The UR3 CobotOps Dataset is an essential collection of multidimensional time-series data from the UR3 cobot, offering insights into operational parameters and faults for machine learning in robotics and automation. It features electrical currents, temperatures, speeds across joints (J0-J5), gripper current, operation cycle count, protective stops, and grip losses, collected via MODBUS and RTDE protocols. This dataset supports research in fault detection, predictive maintenance, and operational optimization, providing a detailed operational snapshot of a leading cobot model for industrial applications

Dataset Subject Area

Characteristics Engineering

Multivariate, Time-Series

Real, Categorical,

Feature Type

Integer

Instances

7409

Associated Tasks

Classification. Regression, Clustering, Other

Features

20

Dataset Information

Has Missing Values?

Yes

Introductory Paper

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1 1 citations

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<u>Leveraging Information Flow-Based Suzzy Cognitive Maps for</u> <u>Interpretable Fault Diagnosis in Industrial Robotics</u>

By Marios Tyrovolas, Khurshid Aliev, Dario Antonelli, Chrysostomos Stylios. 2024

Published in 15th Advanced Doctoral Conference on Computing, Electrical and Industrial Systems

Variables Table			^
Variable Name	Role	Туре	Description
Current_J0	Feature	Continuous	
Temperature_T0	Feature	Continuous	
Current_J1	Feature	Continuous	
Temperature_J1	Feature	Continuous	
Current_J2	Feature	Continuous	
Temperature_J2	Feature	Continuous	
Current_J3	Feature	Continuous	
Temperature_J3	Feature	Continuous	
Current_J4	Feature	Continuous	
Temperature_J4	Feature	Continuous	
Current_J5	Feature	Continuous	
Temperature_J5	Feature	Continuous	
Speed_J0	Feature	Continuous	
Speed_J1	Feature	Continuous	

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DOI

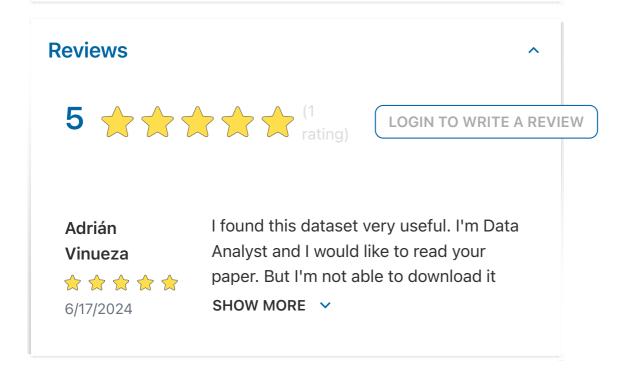
10.24432/C5J891

Speed_J2	Feature	Continuous
Speed_J3	Feature	Continuous
Speed_J4	Feature	Continuous
Speed_J5	Feature	Continuous
Tool_current	Feature	Continuous
cycle	Feature	Integer
Robot_ProtectiveStop	Target	Binary
grip_lost	Target	Binary
Rows per page	e 25	0 to 22 of 22 < >

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This allows for the sharing and adaptation of the datasets for any purpose, provided that the appropriate credit is given.



THE PROJECT

NAVIGATION

LOGISTICS

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