

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202311055393 A

(19) INDIA

(22) Date of filing of Application :18/08/2023

(43) Publication Date : 15/09/2023

(54) Title of the invention : SYSTEM AND METHOD FOR RELATIONAL TIME SERIES LEARNING WITH A DIGITAL COMPUTER

(51) International classification :G06N0020000000, G06N0020200000, H04N0021234000, G06F0016220000, G06Q0040060000

(86) International Application No :NA  
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA  
Filing Date :NA

(62) Divisional to Application Number :NA  
Filing Date :NA

(71)Name of Applicant :

**1)Chitkara University**

Address of Applicant :Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Patiala -----

**2)Bluest Mettle Solutions Private Limited**

Name of Applicant : NA

Address of Applicant : NA

(72)Name of Inventor :

**1)MISHRA, Rahul**

Address of Applicant :ODC-4, Panchshil Tech Park, inside Courtyard by Marriott premises, Hinjewadi Phase - 1, Pune - 411057, Maharashtra, India. Pune -----

**2)PANDEY, Sakshi**

Address of Applicant :ODC-4, Panchshil Tech Park, inside Courtyard by Marriott premises, Hinjewadi Phase - 1, Pune - 411057, Maharashtra, India. Pune -----

**3)MANTRI, Archana**

Address of Applicant :Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Patiala -----

(57) Abstract :

The system (100) for relational time series learning involves a digital computer (102) that serves as the foundation of the invention, hosting a relational learning algorithm (108) and other software components responsible for processing time series data and generating relational features. The relational learning algorithm (108) processes time series data to generate relational features. These features become inputs for training a machine learning model (110) responsible for predicting future values. To ensure data compatibility, a pre-processing module (112) prepares the time series data before feeding it into the learning algorithm. The system further incorporates an application module (114) tailored for various domains and utilizes a network for inter-component communication. Within the computer architecture, a dedicated database (106), managed by a database management system, houses the time series data, culminating in a cohesive system that empowers precise time series predictions across diverse industries.

No. of Pages : 18 No. of Claims : 10