

Karadeniz Technical University  
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## An Address Based Geospatial Application

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## An Address Based Geospatial Application

### Importance of Address Data

Elements of an address

In Turkey, Approximate cost \$60 million annually to forward or return mail

- Correct Addressing Is Important To Achieve Timely, Cost Effective, Delivery of Your Important Mail
- Business Value In Maintaining Contact With Existing Customers
- Access to First-Class Presort And Automation-Rate Discounts (Move Update Compliance)

## An Address Based Geospatial Application

### Importance of Address Data

- Address issue is of great importance in the world...
- Address is a key element for "open up the world of GI"...
- Address system contributes to the physical infrastructure of a modern society...
- Address data is in many countries seen as a natural part of society's core data...
- Economical losses that derive from address data is very important in view of budget especially in developing countries like Turkey...

Austria, Denmark, Finland, France, Germany, Netherlands, Portugal, Spain, Sweden, UK.

Total 74 Billion pieces Mail      Annual Loss      \$6,2 Billion  
Total Mail Budget is \$86 billion

5.4 Billion pieces in FY98 or 2,7% of total mail volume, in USA

## An Address Based Geospatial Application

### Address Issues In Turkey

Name	Type of Message	Address
Hüseyin YILDIRIM	Electricity Bill	Anavattin Cad. Zine Otel Yanı Pelitli / TRABZON
Hüseyin YILDIRIM	Water Bill	Devlet Karayolu Cad. Yildirim Apartmanı Pelitli / Trabzon
Hüseyin YILDIRIM	Telephone Bill	Adnan Kahveci Mah. Rıza Cad. Zine Otel Yanı 61010 / Pelitli / Trabzon
Hüseyin YILDIRIM	Retirement Fund	Adnan Kahveci Mah. Rıza Cad. No:160 Pelitli / Trabzon
Kenan YILDIRIM	Postal Service	Hükümet Caddesi Zine Otel Yanı Kat:2 Pelitli / Trabzon
Kenan YILDIRIM	SSSP	Hükümet Cad. Adnan Kahveci Mah. No: 160 Pelitli / Trabzon

- Majority of address components,
- Lack of needed sensitivity of numerating studies,
- Different address formats used by different societies,
- Lacking of awareness of societies about changes in address components.

## An Address Based Geospatial Application

### Case Study of Pelitli Municipality: PAIS

In this application an AIS design and application realized for Trabzon City, Pelitli Municipality, selected as pilot area and then it is aimed that this design and application will be consider a general model for the others.

Pelitli Municipality  
Address  
Information  
System

## An Address Based Geospatial Application

### Case Study of Pelitli Municipality: PAIS

In this study;

- AIS requirements were examined.
- AIS design was realized.
- This design was applied in Pelitli.
- Data acquired from
  - a- Land studies
  - b- Public institutions
  - c- Private institutions
- These data are manipulated in Arc/Info and ArcView GIS environment

8.4% of addresses are outdated in just a six - month period.  
85% of your addresses may be incorrect after 5 years.

### An Address Based Geospatial Application Addressing Applications In PAIS

#### 1- Address Matching

Address matching is the process of adding location information to a database containing business, survey or administrative records

### An Address Based Geospatial Application Addressing Applications In PAIS

#### 2- Address Geocoding

Before geocoding:

Address	Zone	X-Coord	Y-Coord
6 EFSANE ST	61100		

After geocoding:

Address	Zone	X-Coord	Y-Coord
6 EFSANE ST	61100	-100,318837	44,35275

"Geocoding" is the process of matching records in two databases: your address database and a reference street database/layer

### An Address Based Geospatial Application Addressing Applications In PAIS

#### 3- Real Estate Tax Collection

In application which is performed in Pelitli, real estate taxes computed automatically and using address data they were communicated tax payers.

#### 4- Emergency Analysis

Using address data, emergency analysis and queries are the most effective methods for optimum deciding.

### An Address Based Geospatial Application Addressing Applications In PAIS

#### 5- Distribution Applications

Stops	Name	Address
Stop 1	Halli Inan	100 Uzun St.
Stop 2	Recep Nisan	50 Gul St.
Stop 3	Ahmet Sesli	24 Vomra Ave.
Stop 4	Ayşe Gul	11 Bahar St.

Using GIS functions and address data sets to perform distribution network design is very simple.

### An Address Based Geospatial Application Addressing Applications In PAIS

#### 6- School Enrolment – Bus Route Service

LEJAND

- SCHOOLS
- ROADS
- STUDENTS
- ENROLMENT FOR "İHSAN KOZ"

Konu	Adı	Soyadı	Batılı	Adres	Telno	Okul Adı
61170001	Ali	YİĞİT	Orman	01 Yab Cad.	2257147	İhsan Koz İlköğretim Okulu
61170002	Hasan	MARADA	Ali	25 Yab Cad.	2251124	İhsan Koz İlköğretim Okulu
61170003	Mucahit	EROĞLU	Eğirlik	35 Çimen Cad.	2252900	İhsan Koz İlköğretim Okulu
61170004	Baki	BAKIR	Marmar	14 Hacı Cad.	2254545	İhsan Koz İlköğretim Okulu
61170005	Emine	ERDOĞAN	Çimen	18 Çimen Sok.	2252871	İhsan Koz İlköğretim Okulu
61170006	Yakup	ÖZTÜRK	İhsan	13 Çimen Sok.	2252222	İhsan Koz İlköğretim Okulu
61170007	Yakup	YILDIRIM	Orman	19 Çimen Sok.	2252467	İhsan Koz İlköğretim Okulu
61170008	Yakup	YILDIRIM	Orman	19 Çimen Sok.	2252467	İhsan Koz İlköğretim Okulu

### An Address Based Geospatial Application Conclusion

Seconds or minutes are very important for life. In emergency cases, delay with determining positing using address data directly effects man health. In this respect, it seems that address data is a rescuer in usually. So, it is important that integrating these data and information systems.

"Nobody can help you, if they can not find you..."



**THANKS...**

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