

Intranet of Physics Department

A proposed project

By

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My Motivation

- Digital Libraries
- My small hard disk is not the place to store commonly needed files/ minutes
- Some sites of other universities
- E-trends, Informatics is the way of future

I Intranet, defined

I Intranet

- Definition
- Levels of Usage
- Aspects to be noted

- KFUPM Intranet

Intranet

- Network of computers with specific audience/users, access control and emphasis on functionality.
- Part on Internet enclosed with fences
- Overlap with Internet

Levels of Usage

- **Level 1: Display**
 - Supplement or replace prints
 - Dirty intranet
- **Level 2: share**
 - Exchange and/or use of databases
 - Security levels and access control
- **Level 3: Interactive Communication**
 - Independent from the other media (paper, meetings)

KFUPM Intranet

- Hardware part is done for us
- Department community is ready
(server, email grouping, ftp, sharing)
- Administrative time is too long compared to research/ teaching time-> solution?
- Space limitation for paper records

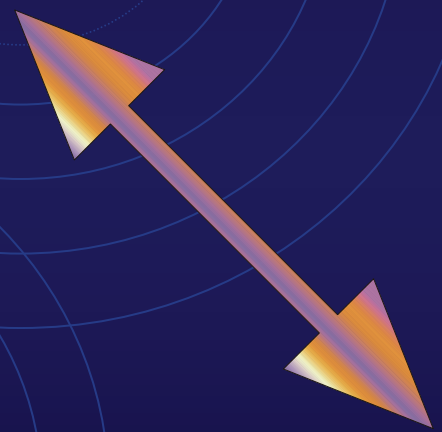
Some points

- **Contents**
 - It is not the appearance
 - Avoid static contents
 - Accessibility should be reasonable
- **Benefits**
 - Cost to produce distribute and store papers
 - Time savings (initial cost, running cost)

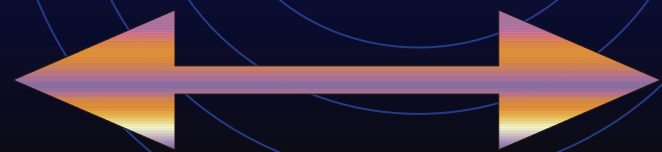
II Intranet to Physics

Physics Department Activities

Administration



Research



Teaching

II-A Teaching

II-A Teaching

- Contents: (Knowledge/Skills)
- Exams/QZ/ HW (verify)
- Grades (verify/ certify)
- Hyper course material (un-restricted to specific)

- **Database of “All Courses All Terms”**
- **Individual Courses:**
 - Home pages
(Standardized + Dynamic + Smart features)
 - Soft Course Files

Database of All Courses All Terms

- When this course was offered?
- Who taught it before?
- What books were used to teach it?
- Typical no. of students?
- Average performance?
- What is their average performance?
- Teaching experience or profile of this teacher?

Courses Home Pages

- Syllabus + Timings (classes, OH, Exams)
- Internet sites:
 - coarse level + course extension
- Home work + Exams + Handouts
- Sample exams? + Solutions?!

- Smart Features:
 - Calculator1: *I missed my lab and I like to make it up, When is it possible?*
 - Calculator2: I will be absent next Sunday, who can replace me?

Soft Course Files

- More accessible and compact than paper
- Security!

- Large part of our course files were digital
- Some parts could be scanned
- Good home pages may contribute

- Two options with a difference
 - Gathered folder
 - Quality folder with listing and hyper links (standardization?) will help us later

Students Records

- Much less than registrar records
- Records of final physics grades only
- Local database

How many of phys 102 students are:

- Fresh
- W
- F

II-B Research

II-B Research

(Inter- / Intra- net)

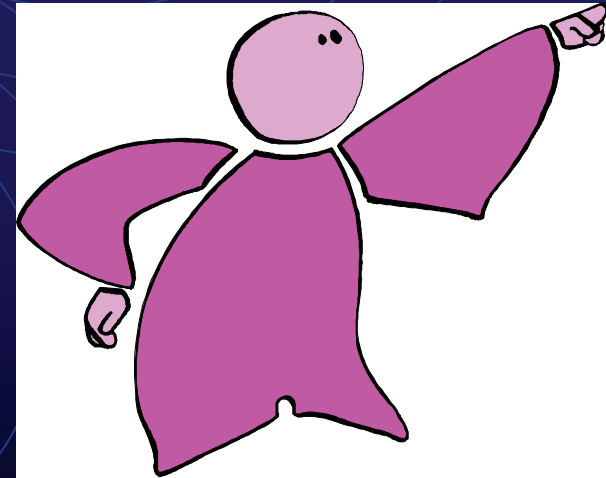
- Database of papers
- Seminars & public lectures
- Research labs & groups

Database of papers

- Database (update,search) + web page:
 - Fields: title, keywords, abstract, journal/paper links, acceptance/ publication dates
 - What kind of work can be done with these labs?
- Master index of all work
- Documentation role: people can point to papers instead of including them in there home pages.

Seminars & public lectures

- Database (update, search) + web page:
 - Common practice
 - Positive to Audience & the lecturer
- The lecturer to leave his:
 - Contact address (email/ homepage)
 - Reference materials / links
 - His presentation if he wishes
- 1 hour event ==> more lasting event



Research labs & groups

- Open ended problems/ current projects
- Links, Collaborating Labs
- Detailed account of facilities (2 versions)
 - Short: to bring collaborators & customers
 - Detailed: researcher to communicate over extended times
- Group + ex-members (contacts)

II-C Administration

- A Joke: off record

- **KFUPM: King Fahd University of Petroleum and Minerals**

- =

- =

- =

- =

- Memos**

II-C Administration

- Faculty / Staff Scheduling system
- Committees (standing + temporary)
- Common Forms / procedures
- Memos tracking system
- Soft Personnel files

Scheduling System

- Database with all work load
- Smart teaching hours, (Thu, holiday, proctoring, lab free week)
- Smart meeting times
- Easy update, scheduling, display
- Instructor replacement info
- Potential time saver

Committees

- Each Committee with home page
- Fields: name, mission, membership (current & past), assignments, Rules, Future plans,
- Minutes on a database, with smart naming, search features,
- Scan needed old documents

Common Forms / Procedures

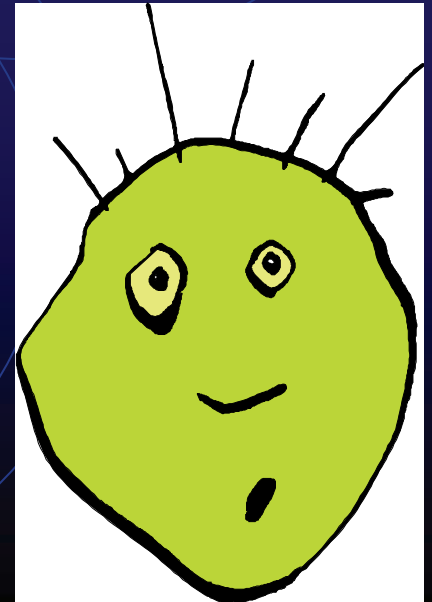
- Room reservation, self evaluation, maintenance, petition ...
- PDF, html (lasting formats)
- Procedures & contacts related
- FAQ for new faculty, comprehensive

Memos tracking system

- Fields of such database:
 - Direction, classification dates, appended, serial#s, pointers, reminders
 - Bonded to email
 - Auto naming and storing
- Parallel to papers not a replacement

Soft Personnel files

- To aid not replace the existing records
- If done then records can be stacked differently
- Scanning old documents



III Implementation

II Implementation

- Current situation
- What do we want?

- Overall design
- Resources
- Time line

Current Situation

- Hardware part is done for us
- Department community is ready
(server, email grouping, ftp, sharing)
- Seed ideas are appearing
- Good scanner hooked to a good PC!

Objectives

- Some vs. All: All but not once
- Ideas will mature and be refined with use
- Do little but seriously;
- Vital not disappoint your users;

Overall design

- Central page with links to various sub sites
- Access control with clear messages
- Database with web based update and search features
- Simplicity is vital so users can modify and update their work

Resources

- ICS, Senior Projects
 - Free expertise (security: 3rd party?)
 - serving both parties
- Secretary (data collection)
- Faculty (setting specifications)
- External programmers (why not?)

Project timeline

- Selection of starting works
- Layout of specifications
- Data collection

Conclusion



- Digital world is coming,
 - Ride the current instead of reverse swim
 - Earlier the better
 - Variance → Independence
 - : no One company, no one technology
- Transparency helps! (it is not MOD)