UNIVERSITY OF MADRAS

M.Sc. DEGREE PROGRAMME IN MATHEMATICS

SYLLABUS WITH EFFECT FROM 2023-2024

<table>
<tr><td colspan="2">TitleoftheCourse</td><td colspan="7">FUZZYSETSAND THEIR APPLICATIONS</td></tr>
<tr><td colspan="2">PaperNumber</td><td colspan="7"></td></tr>
<tr><td rowspan="2">Category</td><td rowspan="2">Elective</td><td>Year</td><td>I</td><td rowspan="2">Credits</td><td rowspan="2">3</td><td rowspan="2">Course Code</td><td rowspan="2">428E1F</td></tr>
<tr><td>Semester</td><td>I</td></tr>
<tr><td colspan="2">Pre-requisite</td><td colspan="7">Knowledgeofgraphs,relations,composition</td></tr>
<tr><td colspan="2">CourseOutline</td><td colspan="7">UNIT-I:FundamentalNotions

ChapterI:Sec. 1to 8</td></tr>
<tr><td colspan="2"></td><td colspan="7">UNIT-II:FuzzyGraphs

Chapter II:Sec. 10 to 18</td></tr>
<tr><td colspan="2"></td><td colspan="7">UNIT-III :FuzzyRelations

Chapter II: Sec.19 to29</td></tr>
<tr><td colspan="2"></td><td colspan="7">UNIT-IV:FuzzyLogic

ChapterIII:Sec.31 to 40(omitSec. 37, 38,41)</td></tr>
<tr><td colspan="2"></td><td colspan="7">UNIT-V:The LawsofFuzzyComposition

ChapterIV:Sec.43 to49</td></tr>
<tr><td colspan="2">RecommendedText</td><td colspan="7">A.Kaufman,Introduction tothe theoryofFuzzysubsets,Vol.I, AcademicPress,NewYork,1975.</td></tr>
<tr><td colspan="2">ReferenceBooks</td><td colspan="7">1. H.J.Zimmermann, Fuzzy Set Theory and its Applications, Allied Publishers,Chennai,1996
2. George J.Klir and Bo Yuan, Fuzzy sets and Fuzzy Logic-Theory andApplications,PrenticeHallIndia, NewDelhi,2001.</td></tr>
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