

ABSTRAK

Gereja Katolik Santo Paulus sampai saat ini memiliki jumlah umat yang cukup banyak, tetapi dalam pengolahan data umat masih menggunakan cara manual. Salah satunya ialah dalam pengolahan data sensus umat masih memakai cara manual sehingga dalam pengolahan data akan memerlukan waktu yang lama dan pengarsipan data yang memungkinkan terjadi kesalahan. Tujuan dari penelitian ini adalah membuat suatu sistem informasi yang dapat menangani data sensus umat di gereja Katolik Santo Paulus dan memanfaatkan data sensus umat untuk *recruitment* anggota Dewan Pastoral Paroki atau pejabat gereja sesuai dengan jabatannya secara terintegrasi dan terkomputerisasi sehingga memudahkan pihak gereja dalam melakukan pengolahan data umat. Metode yang digunakan dalam penelitian ini adalah analisa deskriptif dengan pendekatan studi kasus. Pengumpulan data dilakukan dengan metode wawancara kepada pihak gereja. Aplikasi ini dibuat dengan menggunakan bahasa pemrograman C# dan basis data SQL Server 2008. Hasil penelitian menunjukkan bahwa aplikasi sistem informasi membantu pengguna dalam mengorganisasikan data.

Kata Kunci : sistem informasi, sensus, Dewan Pastoral Paroki, *recruitment*, C#, SQL Server 2008

ABSTRACT

Though St. Paul Catholic Church nowadays has a considerable number of people, but the data processing people still use manual way. One is in the processing of census data people still use manual way so that the data processing will take a long time and archiving of data allows an error occurs. The purpose of this research is to create an information system that can handle data at the census of the people of St. Paul Catholic Church and people take advantage of census data for Parish Pastoral Council member recruitment or church officials in accordance with his position in an integrated and computerized to facilitate the conduct of the church in the data processing people. The method used in this research is descriptive analysis with approach of case studies. Data was collected through interviews to the church. This application is created using C # programming language and database SQL Server 2008. The results showed that the application of information systems help users to organize data.

Keywords: information systems, census, Parish Pastoral Council, recruitment, C #, SQL Server 2008

DAFTAR ISI

LEMBAR PENGESAHAN	i
PERNYATAAN PUBLIKASI LAPORAN PENELITIAN.....	ii
PERNYATAAN ORISINALITAS LAPORAN PENELITIAN.....	iii
PRAKATA.....	iv
ABSTRAK.....	vi
ABSTRACT	vii
DAFTAR ISI.....	viii
DAFTAR TABEL	xii
DAFTAR GAMBAR.....	xiii
DAFTAR LAMPIRAN	xv
BAB I PENDAHULUAN	1
1.1 Latar Belakang	1
1.2 Rumusan Masalah.....	2
1.3 Tujuan Pembahasan	2
1.4 Ruang Lingkup Kajian	3
1.5 Sumber Data	3
1.6 Sistematika Penyajian	4
BAB II KAJIAN TEORI	6
2.1 Sistem Informasi.....	6
2.2 Sensus	7
2.2.1 Pengertian Sensus	7
2.2.2 Pelaksanaan Sensus.....	8
2.2.3 Hambatan dan Kesalahan	11
2.2.3.1 Hambatan	11
2.2.3.2 Kesalahan.....	12
2.2.4 Manfaat Sensus	12
2.3 Flowchart.....	13
2.3 Basis Data.....	15
2.4.1 Definisi	15
2.4.2 Bahasa Basis Data.....	16
2.4.2.1 Data Definition Language (DDL)	16
2.4.2.2 Data Manipulation Language (DML).....	17
2.5 Diagram Entity-Relationship (Diagram E-R).....	17
2.6 UML	21
2.6.1 Usecase Diagram	23
2.6.2 Class Diagram.....	24
2.6.3 Activity Diagram	26
2.7 DSS (Decision Support System).....	27
2.8 Fuzzy Multiple Attribute Decision Making (FMADM)	29
2.8.1 Algoritma FMADM	32
2.8.2 Langkah Penyelesaian FMADM	33
2.9 Metode SAW (Simple Additive Weighting)	33
2.10 Teknologi yang Digunakan	40

2.10.1 Bahasa Pemrograman C#	40
2.10.2 SQL Server Express.....	40
2.11 <i>Testing Black Box</i>	40
BAB III ANALISIS DAN RANCANGAN SISTEM	42
3.1 Proses Bisnis.....	42
3.1.1 Sistem Sensus Umat.....	43
3.1.2 Sistem Perekatan Staff Dewan Pastoral Paroki	45
3.2 Basis Data.....	47
3.2.1 <i>Entity Relationship Diagram (ERD)</i>	47
3.2.2 Tabel Skema Relasi	48
3.3 <i>Use Case</i>	53
3.3.1 <i>Use Case Level 1</i>	53
3.3.2 <i>Use Case Level 2</i>	54
3.3.2.1 <i>Use Case Sistem Pengolahan Master Data</i>	54
3.3.2.2 <i>Use Case Sistem Pengolahan Data Sensus</i>	55
3.3.2.3 <i>Use Case Sistem Pengolahan Data Recruitment DPP</i>	56
3.4 <i>Class Diagram</i>	57
3.5 <i>Activity Diagram</i>	58
3.5.1 Sistem Pengolahan Master Data	58
3.5.1.1 Data User	58
3.5.1.1.1 <i>Activity Diagram Add Data User</i>	58
3.5.1.1.2 <i>Activity Diagram Edit Data User</i>	59
3.5.1.1.3 <i>Activity Diagram Delete Data User</i>	60
3.5.1.1.4 <i>Activity Diagram Search Data User</i>	61
3.5.1.2 Data Anggota DPP.....	62
3.5.1.2.1 <i>Activity Diagram Add Data Anggota DPP</i>	62
3.5.1.2.2 <i>Activity Diagram Edit Data Anggota DPP</i>	63
3.5.1.2.3 <i>Activity Diagram Delete Data Anggota DPP</i>	64
3.5.1.2.4 <i>Activity Diagram Search Data Anggota DPP</i>	65
3.5.1.3 Data Jabatan	66
3.5.1.3.1 <i>Activity Diagram Add Data Jabatan</i>	66
3.5.1.3.2 <i>Activity Diagram Edit Data Jabatan</i>	67
3.5.1.3.3 <i>Activity Diagram Delete Data Jabatan</i>	68
3.5.1.3.4 <i>Activity Diagram Search Data Jabatan</i>	69
3.5.1.4 Data Keuskupan	70
3.5.1.4.1 <i>Activity Diagram Add Data Keuskupan</i>	70
3.5.1.4.2 <i>Activity Diagram Edit Data Keuskupan</i>	71
3.5.1.4.3 <i>Activity Diagram Delete Data Keuskupan</i>	72
3.5.1.5 Data Paroki.....	73
3.5.1.5.1 <i>Activity Diagram Add Data Paroki</i>	73
3.5.1.5.2 <i>Activity Diagram Edit Data Paroki</i>	74
3.5.1.5.3 <i>Activity Diagram Delete Data Paroki</i>	75
3.5.1.6 Data Lingkungan.....	76
3.5.1.6.1 <i>Activity Diagram Add Data Lingkungan</i>	76
3.5.1.6.2 <i>Activity Diagram Edit Data Lingkungan</i>	77

3.5.1.6.3	<i>Activity Diagram Delete Data Lingkungan</i>	78
3.5.2	Sistem Pengolahan Data Sensus	79
3.5.2.1	Data Rumah Tangga Katolik (RTK).....	79
3.5.2.1.1	<i>Activity Diagram Add Data RTK</i>	79
3.5.2.1.2	<i>Activity Diagram Edit Data RTK</i>	80
3.5.2.1.3	<i>Activity Diagram Delete Data RTK</i>	81
3.5.2.1.4	<i>Activity Diagram Search Data RTK</i>	82
3.5.2.2	Data Anggota Rumah Tangga Katolik (ARTK)	83
3.5.2.2.1	<i>Activity Diagram Add Data ARTK</i>	83
3.5.2.2.2	<i>Activity Diagram Edit Data ARTK</i>	84
3.5.2.2.3	<i>Activity Diagram Delete Data ARTK</i>	85
3.5.3	Sistem Pengolahan Data <i>Recruitment</i> Anggota.....	86
3.5.3.1	Data Permintaan DPP	86
3.5.3.1.1	<i>Activity Diagram Add Data Permintaan DPP</i>	86
3.5.3.1.2	<i>Activity Diagram Edit Data Permintaan DPP</i>	87
3.5.3.1.3	<i>Activity Diagram Delete Data Permintaan DPP</i>	88
3.5.3.2	Data Kriteria Permintaan.....	89
3.5.3.2.1	<i>Activity Diagram Add Data Kriteria Permintaan</i>	89
3.5.3.2.2	<i>Activity Diagram Edit Data Kriteria Permintaan</i>	90
3.5.3.2.3	<i>Activity Diagram Delete Data Kriteria Permintaan</i>	91
3.5.3.3	Data <i>Recruitment</i> SAW	92
3.5.3.3.1	<i>Activity Diagram Add Data Recruitment SAW</i>	92
3.6	Rancangan Antarmuka.....	93
3.6.1	<i>Login</i>	93
3.6.2	Halaman Utama	93
3.6.3	<i>Master Data</i>	94
3.6.3.1	Menu <i>Master Data User</i>	94
3.6.3.2	Menu <i>Master Data Jabatan</i>	95
3.6.3.3	Menu <i>Master Data Anggota DPP</i>	96
3.6.3.4	Menu <i>Master Data Keuskupan</i>	97
3.6.3.5	Menu <i>Master Data Paroki</i>	97
3.6.3.6	Menu <i>Master Data Lingkungan</i>	98
3.6.4	Sensus	99
3.6.4.1	Menu Tambah RTK.....	99
3.6.4.2	Menu Tambah ARTK	100
3.6.4.3	Lihat Data Sensus.....	102
3.6.5	<i>Recruitment</i> Anggota Dewan Pastoral Paroki (DPP)	103
3.6.5.1	Menu Permintaan DPP	103
3.6.5.2	Menu Kriteria DPP	104
3.6.5.3	Menu <i>Recruitment</i> Anggota DPP	105
BAB IV	HASIL PENELITIAN	106
4.1	<i>Form Login</i>	106
4.2	<i>Form</i> Halaman Utama	106
4.3	Halaman <i>User</i>	107
4.4	Halaman Jabatan	108

4.5	Halaman Anggota DPP	109
4.6	Halaman Keuskupan	110
4.7	Halaman Paroki.....	111
4.8	Halaman Lingkungan	112
4.9	Halaman RTK (Rumah Tangga Katolik).....	113
4.10	Halaman ARTK	114
4.10.1	Halaman ARTK Data Diri.....	114
4.10.2	Halaman ARTK Sakramen	115
4.10.3	Halaman ARTK Peran Aktif Umat.....	116
4.11	Halaman Lihat Data Sensus	117
4.12	Halaman Permintaan DPP.....	118
4.13	Halaman Kriteria.....	119
4.14	Halaman Rekrutment Anggota DPP	120
BAB V PEMBAHASAN DAN HASIL UJI COBA PENELITIAN.....		121
5.1	<i>Login</i>	121
5.2	Halaman <i>User</i>	121
5.3	Halaman Jabatan	123
5.4	Halaman Anggota DPP	123
5.5	Halaman Keuskupan	124
5.6	Halaman Paroki.....	125
5.7	Halaman RTK (Rumah Tangga Katolik).....	125
5.8	Halaman Pertama ARTK	126
5.9	Halaman Kedua ARTK	127
5.10	Halaman Ketiga ARTK	128
5.11	Halaman Lihat Data Sensus	128
5.12	Halaman Permintaan DPP.....	129
5.13	Halaman Kriteria.....	130
5.14	Halaman Solusi SAW	130
BAB VI SIMPULAN DAN SARAN		131
6.1	Simpulan	131
6.2	Saran.....	132
DAFTAR PUSTAKA.....		133
RIWAYAT HIDUP PENULIS		134

DAFTAR TABEL

Tabel I Simbol-simbol Flowchart (Febriani, 2007)	14
Tabel II Jenis Cardinality Ratio (Primashanti, 2006)	20
Tabel III Simbol <i>Usecase Diagram</i>	23
Tabel IV Simbol <i>Class Diagram</i>	26
Tabel V Simbol Activity Diagram	27
Tabel VI Nilai IPK	35
Tabel VII Nilai Penghasilan Orang Tua	36
Tabel VIII Nilai Jumlah Tanggungan Orang Tua	36
Tabel IX Nilai Usia	36
Tabel X Nilai Semester	37
Tabel XI Data Pemohon	37
Tabel XII Rating kecocokan dari setiap alternatif pada setiap kriteria	38
Tabel XIII Relasi Diagram Tabel User	48
Tabel XIV Relasi Diagram Tabel RTK	48
Tabel XV Relasi Diagram Tabel ARTK	49
Tabel XVI Relasi Diagram Tabel AnggotaDPP	50
Tabel XVII Relasi Diagram Tabel Jabatan	51
Tabel XVIII Relasi Diagram Tabel PermintaanDPP	51
Tabel XIX Relasi Diagram Tabel Kriteria_Permintaan	51
Tabel XX Relasi Diagram Tabel Solusi SAW	51
Tabel XXI Relasi Diagram Tabel Keuskupan	52
Tabel XXII Relasi Diagram Tabel Paroki	52
Tabel XXIII Relasi Diagram Tabel Provinsi	52
Tabel XXIV Relasi Diagram Tabel Kota	52
Tabel XXV Relasi Diagram Tabel Lingkungan	52
Tabel XXVI <i>Blackbox Testing Login</i>	121
Tabel XXVII <i>Blackbox Testing Halaman User</i>	121
Tabel XXVIII <i>Blackbox Testing Halaman Jabatan</i>	123
Tabel XXIX <i>Blackbox Testing Halaman Anggota DPP</i>	123
Tabel XXX <i>Blackbox Testing Halaman Keuskupan</i>	124
Tabel XXXI <i>Blackbox Testing Halaman Paroki</i>	125
Tabel XXXII <i>Blackbox Testing Halaman RTK</i>	125
Tabel XXXIII <i>Blackbox Testing Halaman Pertama ARTK</i>	126
Tabel XXXIV <i>Blackbox Testing Halaman Kedua ARTK</i>	127
Tabel XXXV <i>Blackbox Testing Halaman Ketiga ARTK</i>	128
Tabel XXXVI <i>Blackbox Testing Halaman Lihat Data Sensus</i>	128
Tabel XXXVII <i>Blackbox Testing Halaman Permintaan DPP</i>	129
Tabel XXXVIII <i>Blackbox Testing Halaman Kriteria</i>	130
Tabel XXXIX <i>Blackbox Testing Halaman Solusi SAW</i>	130

DAFTAR GAMBAR

Gambar 1 <i>Weak Entity</i> (Primashanti, 2006)	18
Gambar 2 <i>Identifying Relationship</i> (Primashanti, 2006)	18
Gambar 3 <i>Strong Entity</i> (Primashanti, 2006).....	18
Gambar 4 Atribut Key (Primashanti, 2006)	19
Gambar 5 Atribut Simple (Primashanti, 2006).....	19
Gambar 6 Atribut Komposit (Primashanti, 2006)	19
Gambar 7 <i>Multivalued</i> Atribut (Primashanti, 2006).....	19
Gambar 8 Atribut Turunan (Primashanti, 2006)	20
Gambar 9 Relasi (Primashanti, 2006).....	20
Gambar 10 <i>Participation Constraint</i> (Primashanti, 2006)	21
Gambar 11 Grafik Bobot	35
Gambar 12 <i>Flowchart</i> Sistem Sensus Umat Katholik Santo Paulus.....	44
Gambar 13 <i>Flowchart</i> Sistem Perekrutan Staff Dewan Pastoral Paroki	46
Gambar 14 <i>Use Case Level 1</i>	53
Gambar 15 <i>Use Case</i> Sistem Pengolahan Master Data	54
Gambar 16 <i>Use Case</i> Sistem Pengolahan Data Sensus	55
Gambar 17 <i>Use Case</i> Sistem Pengolahan Data <i>Recruitment</i> DPP.....	56
Gambar 18 <i>Activity Diagram</i> Add Data User	58
Gambar 19 <i>Activity Diagram</i> Edit Data User	59
Gambar 20 <i>Activity Diagram</i> Delete Data User	60
Gambar 21 <i>Activity Diagram</i> Search Data User.....	61
Gambar 22 <i>Activity Diagram</i> Add Data Anggota DPP	62
Gambar 23 <i>Activity Diagram</i> Edit Data Anggota DPP	63
Gambar 24 <i>Activity Diagram</i> Delete Data Anggota DPP	64
Gambar 25 <i>Activity Diagram</i> Search Data Anggota DPP	65
Gambar 26 <i>Activity Diagram</i> Add Data Jabatan	66
Gambar 27 <i>Activity Diagram</i> Edit Data Jabatan.....	67
Gambar 28 <i>Activity Diagram</i> Delete Data Jabatan	68
Gambar 29 <i>Activity Diagram</i> Search Data Jabatan.....	69
Gambar 30 <i>Activity Diagram</i> Add Data Keuskupan.....	70
Gambar 31 <i>Activity Diagram</i> Edit Data Keuskupan	71
Gambar 32 <i>Activity Diagram</i> Delete Data Keuskupan	72
Gambar 33 <i>Activity Diagram</i> Add Data Paroki	73
Gambar 34 <i>Activity Diagram</i> Edit Data Paroki.....	74
Gambar 35 <i>Activity Diagram</i> Delete Data Paroki.....	75
Gambar 36 <i>Activity Diagram</i> Add Data Lingkungan	76
Gambar 37 <i>Activity Diagram</i> Edit Data Lingkungan	77
Gambar 38 <i>Activity Diagram</i> Delete Data Lingkungan.....	78
Gambar 39 <i>Activity Diagram</i> Add Data RTK.....	79
Gambar 40 <i>Activity Diagram</i> Edit Data RTK.....	80
Gambar 41 <i>Activity Diagram</i> Delete Data RTK	81
Gambar 42 <i>Activity Diagram</i> Search Data RTK	82
Gambar 43 <i>Activity Diagram</i> Add Data ARTK	83
Gambar 44 <i>Activity Diagram</i> Edit Data ARTK	84
Gambar 45 <i>Activity Diagram</i> Delete Data ARTK.....	85
Gambar 46 <i>Activity Diagram</i> Add Data Permintaan DPP	86

Gambar 47 <i>Activity Diagram</i> Edit Data Permintaan DPP	87
Gambar 48 <i>Activity Diagram</i> Delete Data Permintaan DPP.....	88
Gambar 49 <i>Activity Diagram</i> Add Data Kriteria Permintaan.....	89
Gambar 50 <i>Activity Diagram</i> Edit Data Kriteria Permintaan.....	90
Gambar 51 <i>Activity Diagram</i> Delete Data Kriteria Permintaan	91
Gambar 52 <i>Activity Diagram</i> Add Data Recruitment SAW	92
Gambar 53 Rancangan Antarmuka Login.....	93
Gambar 54 Rancangan Antarmuka Halaman Utama.....	93
Gambar 55 Rancangan Antarmuka Halaman <i>User</i>	94
Gambar 56 Rancangan Antarmuka Halaman Jabatan	95
Gambar 57 Rancangan Antarmuka Halaman Anggota DPP	96
Gambar 58 Rancangan Antarmuka Halaman Keuskupan	97
Gambar 59 Rancangan Antarmuka Halaman Paroki.....	97
Gambar 60 Rancangan Antarmuka Halaman RTK	99
Gambar 61 Rancangan Antarmuka Halaman Pertama ARTK.....	100
Gambar 62 Rancangan Antarmuka Halaman Kedua ARTK	101
Gambar 63 Rancangan Antarmuka Halaman Ketiga ARTK	101
Gambar 64 Rancangan Antarmuka Halaman Lihat Data Sensus.....	102
Gambar 65 Rancangan Antarmuka Halaman Permintaan DPP.....	103
Gambar 66 Rancangan Antarmuka Halaman Kriteria.....	104
Gambar 67 Rancangan Antarmuka Halaman Solusi SAW	105
Gambar 68 Tampilan Halaman Login.....	106
Gambar 69 Tampilan Halaman Utama.....	106
Gambar 70 Tampilan Halaman <i>User</i>	107
Gambar 71 Tampilan Halaman Jabatan.....	108
Gambar 72 Tampilan Halaman Anggota DPP.....	109
Gambar 73 Tampilan Halaman Keuskupan.....	110
Gambar 74 Tampilan Halaman Paroki	111
Gambar 75 Tampilan Halaman Lingkungan	112
Gambar 76 Tampilan Halaman RTK.....	113
Gambar 77 Tampilan Halaman Pertama ARTK.....	114
Gambar 78 Tampilan Halaman Kedua ARTK	115
Gambar 79 Tampilan Halaman Ketiga ARTK.....	116
Gambar 80 Tampilan Halaman Lihat Data Sensus	117
Gambar 81 Tampilan Halaman Permintaan DPP	118
Gambar 82 Tampilan Halaman Kriteria.....	119
Gambar 83 Tampilan Halaman Solusi SAW.....	120

DAFTAR LAMPIRAN

LAMPIRAN A <i>ENTITY RELATIONSHIP</i> DIAGRAM	A.1
LAMPIRAN B <i>CLASS DIAGRAM</i>	B.1