# Relatório de Estudo Preliminar – Revisão Sistemática – Maio de 2020

Tabela Resumo dos resultados das buscas nas bases de dados: Scopus, IEEE, Web of Science e Embrapa.

BASE Scopus								
SEGMENTO	STRINGs Vs Qtde documentos (Busca)							
	1	2	3	4	5	6	Total Parcial	
1	2	2	1	5	1	129	140	
2	11	10	29				50	
3	34	29	15				78	
4	41	24	50				115	
				Total Geral no				
		Segmento:			383			

BASE IEEE								
SEGMENTO	STRINGs Vs Qtde documentos (Busca)							
	1	2	3	4	5	6	Total Parcial	
1	182	2	9	225	192	5	615	
2	79	217	59				355	
3	23	200	25				248	
4	2	16	50				68	
		Total Geral no						
		Segmento:			1286			

BASE Web of Science									
SEGMENTO		STRINGs Vs Qtde documentos (Busca)							
	1	2	3	4	5	6	Total Parcial		
1	171	12	7	96	3	8	297		
2	81	35	21				137		
3	1	43	42				86		
4	51	60	108				219		
				Total Geral no					
		Segmento:			739				

BASE Embrapa - https://www.alice.cnptia.embrapa.br/								
SEGMENTO		STRINGs Vs Qtde documentos (Busca)						
	1	2	3	4	5	6	Total Parcial	
1	128						128	
2	133						133	
3	41						41	
4	163						163	
Total Geral r				eral no				
			Seg	mento:	465			

#### Descrição dos segmentos para definição das buscas por Palavras-Chave

(**Segmento 1):** Fontes de Dados; Estruturação dos Dados; Vetor de Dados para o Modelo de Decisão.

<u>Palavras-chave:</u> (agriculture; database; cloud; Big Data; Data infraestructure; Data Analysis; heterogeneous data sources; method for data sources; Data vector; decision model) or (Data Warehouse; Big Data Warehouse; Data Lake; NoSQL; Data Mining; Data Classification; data quality).

(Segmento 2): Vetor de dados para o Modelo de Decisão; Imagens digitais da área de Cultura; Reconhecimento de Padrões; Classificação.

<u>Palavras-chave:</u> (agriculture; data vector; big data; decision model; digital image; soybean culture; pattern recognition; classification) or (Data Mining; machine learning; image processing methods; data processing techniques; data mining; soybean disease; remote sensing).

**(Segmento 3):** Imagens digitais da área de Cultura; Reconhecimento de Padrões; Classificação; Fusão de Dados e Modelo de Risco; Mapa de risco.

<u>Palavras-chave:</u> (agriculture; digital agricultural image; big data; asian soybean rust; phakopsora pachyrhizi; crop pattern recognition; classification techniques; data fusion; Information fusion; risk model; risk analysis; risk map; machine learning; image processing methods) or (soybean disease; remote sensing).

**(Segmento 4):** Vetor de dados para o modelo de decisão; Outras variáveis: Climáticas, Variedade e Fertilidade do Solo; Fusão de Dados e Modelo de Risco.

<u>Palavras-chave:</u> (agriculture; Datavector; big data; decision model; Climate variables; environment parameters; soil variety; soil fertility; data fusion; Information fusion; risk model) or (image processing methods; soybean disease; asian soybean rust; Phakopsora pachyrhizi; remote sensing).

# Dados de Strings do Segmento (1)

(AM 040520 SCODIUS SEC 01) have Seenus (Total do 140 decumentes de

(AM-040520-SCOPUS-SEG-01) base Scopus (Total de 140 documentos de retorno – todas as strings) (em 11/05/2020)

String 01: ("agriculture" OR "agricultura") AND ("database" OR "base de dados") AND ("cloud" OR "nuvem") AND ("big data" OR "big data analytics" OR "data analysis") AND ("heterogeneous data sources" OR "bases de dados heterogêneas") AND (LIMIT-TO (PUBYEAR, 2020) OR LIMIT-TO (PUBYEAR, 2018) OR LIMIT-TO (PUBYEAR, 2018) OR LIMIT-TO (PUBYEAR, 2016)) AND (LIMIT-TO (SUBJAREA, "COMP") OR LIMIT-TO (SUBJAREA, "ENGI")) RESULTADO DA BUSCA: 2 DOCUMENTOS

**String 02:** ("agriculture" OR "agricultura") AND ("data infrastructure" OR "infraestrutura de dados") AND ("data analysis" AND "análise de dados") OR

("data vector" OR "vetor para dados") OR ("decision model" OR "modelo de decisão") AND (LIMIT-TO (PUBYEAR, 2020) OR LIMIT-TO (PUBYEAR, 2019) OR LIMIT-TO (PUBYEAR, 2018) OR LIMIT-TO (PUBYEAR, 2017) OR LIMIT-TO (PUBYEAR, 2016))

RESULTADO DA BUSCA: 2 DOCUMENTOS

**String 03:** ("agriculture" OR "agricultura") AND ("data warehouse" OR "armazém de dados") AND "big data warehouse" AND "data lake" AND "nosql" OR ("method for data sources" OR "método para banco de dados") AND (LIMITTO (PUBYEAR, 2020) OR LIMITTO (PUBYEAR, 2019) OR LIMITTO (PUBYEAR, 2018) OR LIMITTO (PUBYEAR, 2017) OR LIMITTO (PUBYEAR, 2016)) AND (LIMITTO (SUBJAREA, "COMP") OR LIMITTO (SUBJAREA, "ENGI"))

**RESULTADO DA BUSCA: 1 DOCUMENTO** 

String 04: ("agriculture" OR "agricultura") AND ("data mining" OR "mineração de dados") AND ("data classification" OR "classificação de dados") AND ("data quality" OR "qualidade de dados") AND (LIMIT-TO (PUBYEAR, 2020) OR LIMIT-TO (PUBYEAR, 2019) OR LIMIT-TO (PUBYEAR, 2018) OR LIMIT-TO (PUBYEAR, 2017) OR LIMIT-TO (PUBYEAR, 2016)) AND (LIMIT-TO (SUBJAREA, "COMP") OR LIMIT-TO (SUBJAREA, "ENGI")) RESULTADO DA BUSCA: 5 DOCUMENTOS

**String 05:** ("agriculture" OR "agricultura") OR ("unstructured data") AND ("information extraction") AND ("big data") AND ("unstructured data analysis") AND ("data sources") AND (LIMIT-TO (PUBYEAR, 2020) OR LIMIT-TO (PUBYEAR, 2019) OR LIMIT-TO (PUBYEAR, 2018) OR LIMIT-TO (PUBYEAR, 2017) OR LIMIT-TO (PUBYEAR, 2016)) RESULTADO DA BUSCA: 1 DOCUMENTO

String 06: ((("agriculture" OR "agricultura") AND ("database" OR "base de dados") AND ("cloud" OR "nuvem") AND ("big data" OR "big data analytics" OR "data analysis") AND ("heterogeneous data sources" OR "bases de dados heterogêneas") AND ("data infrastructure" OR "infraestrutura de dados") AND ("data analysis" AND "análise de dados") AND ("data vector" OR "vetor para dados") AND ("decision model" OR "modelo de decisão") AND ("data warehouse" OR "armazém de dados") AND "big data warehouse" AND "data lake" AND "nosql" AND ("method for data sources" OR "método para banco de dados")) OR (("data mining" OR "mineração de dados") AND ("data classification" OR "classificação de dados") AND ("data quality" OR "qualidade de dados"))) AND (LIMIT-TO (PUBYEAR, 2010)) OR LIMIT-TO (PUBYEAR, 2017) OR LIMIT-TO (PUBYEAR, 2016)) AND (LIMIT-TO (SUBJAREA, "ENGI") OR LIMIT-TO (SUBJAREA, "ENGI") OR LIMIT-TO (SUBJAREA, "DECI"))

**RESULTADO DA BUSCA: 129 DOCUMENTOS** 

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(AM-030520-IEEE-SEG-01) base IEEE (Total de 615 documentos de retorno – todas as strings) (em 11/05/2020)

**String 01:** ("agriculture" OR "agricultura") AND ("database" OR "base de dados") AND ("cloud" OR "nuvem") AND ("big data" OR "big data analytics" OR "data analysis") AND ("heterogeneous data sources" OR "bases de dados heterogêneas")

Filters Applied: agriculture crops soil database management systems Big Data cloud computing plant diseases 2016 - 2020

#### **RESULTADO DA BUSCA: 182 DOCUMENTOS**

**String 02:** ("agriculture" OR "agricultura") AND ("data infrastructure" OR "infraestrutura de dados") OR ("data analysis" AND "análise de dados") AND ("data vector" OR "vetor para dados") AND ("decision model" OR "modelo de decisão")

Filters Applied: 2016 - 2019

#### **RESULTADO DA BUSCA: 2 DOCUMENTOS**

**String 03:** ("agriculture" OR "agricultura") AND ("data warehouse" OR "armazém de dados") OR "big data warehouse" AND "data lake" AND "nosql" OR ("method for data sources" OR "método para banco de dados")

Filters Applied: 2016 - 2020

### **RESULTADO DA BUSCA: 9 DOCUMENTOS**

**String 04:** ("agriculture" OR "agricultura") AND ("data mining" OR "mineração de dados") OR ("data classification" OR "classificação de dados") AND ("data quality" OR "qualidade de dados")

Filters Applied: data mining agriculture crops pattern classification Big Data image classification remote sensing soil cloud computing plant diseases 2016 - 2020

#### **RESULTADO DA BUSCA: 225 DOCUMENTOS**

**String 05:** ("agriculture" OR "agricultura") AND ("unstructured data" OR "dados não estruturados") AND ("big data") AND ("unstructured data analysis" OR "análise de dados não estruturados") OR ("data sources" OR "fonte de dados")

Filters Applied: data integration decision making 2016 - 2020

#### **RESULTADO DA BUSCA: 192 DOCUMENTOS**

String 06: ("agriculture" OR "agricultura") AND ("database" OR "base de dados") AND ("cloud" OR "nuvem") AND ("big data" OR "big data analytics" OR "data analysis") AND ("heterogeneous data sources" OR "bases de dados heterogêneas") AND ("data infrastructure" OR "infraestrutura de dados") AND ("data analysis" AND "análise de dados") AND ("data vector" OR "vetor para dados") AND ("decision model" OR "modelo de decisão") AND ("data warehouse" OR "armazém de dados") AND "big data warehouse" AND "data lake" AND "nosql" AND ("method for data sources" OR "método para banco de dados")) OR

(("data mining" OR "mineração de dados") AND ("data classification" OR "classificação de dados") AND ("data quality" OR "qualidade de dados")

Filters Applied: 2015 – 2019

RESULTADO DA BUSCA: 5 DOCUMENTOS

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(AM-030520-WofS-SEG-01) base Web of Science (814 documentos de retorno) (em 12/05/2020)

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**String 01:** (("agriculture" OR "agricultura") AND ("database" OR "base de dados") OR ("cloud" OR "nuvem") AND ("big data" OR "big data analytics" OR "data analysis") AND ("heterogeneous data sources" OR "bases de dados heterogêneas"))

Refinado por: ANOS DE PUBLICAÇÃO: (2020 OR 2019 OR 2018 OR 2017 OR 2016) AND CATEGORIAS DO WEB OF SCIENCE: (AGRICULTURE MULTIDISCIPLINARY OR COMPUTER SCIENCE THEORY METHODS OR COMPUTER SCIENCE INTERDISCIPLINARY APPLICATIONS OR COMPUTER SCIENCE INFORMATION SYSTEMS OR SOIL SCIENCE OR AGRICULTURAL ENGINEERING)

**RESULTADO DA BUSCA: 171 DOCUMENTOS** 

**String 02:** (("agriculture" OR "agricultura") AND ("data infrastructure" OR "infraestrutura de dados") OR ("data analysis" AND "análise de dados") AND ("data vector" OR "vetor para dados") AND ("decision model" OR "modelo de decisão"))

Refinado por: ANOS DE PUBLICAÇÃO: (2020 OR 2019 OR 2018 OR 2017 OR 2016) AND CATEGORIAS DO WEB OF SCIENCE: (AGRICULTURE MULTIDISCIPLINARY OR COMPUTER SCIENCE INTERDISCIPLINARY APPLICATIONS OR AGRICULTURAL ENGINEERING OR REMOTE SENSING OR COMPUTER SCIENCE INFORMATION SYSTEMS OR COMPUTER SCIENCE THEORY METHODS)

**RESULTADO DA BUSCA: 12 DOCUMENTOS** 

**String 03:** (("agriculture" OR "agricultura") AND ("data warehouse" OR "armazém de dados") OR "big data warehouse" AND "data lake" AND "nosql" OR ("method for data sources" OR "método para banco de dados"))

Refinado por: CATEGORIAS DO WEB OF SCIENCE: (AGRICULTURAL ENGINEERING OR COMPUTER SCIENCE INTERDISCIPLINARY APPLICATIONS OR AGRICULTURE MULTIDISCIPLINARY OR COMPUTER SCIENCE THEORY METHODS OR COMPUTER SCIENCE ARTIFICIAL INTELLIGENCE OR REMOTE SENSING OR COMPUTER SCIENCE INFORMATION SYSTEMS)

Tempo estipulado: Últimos 5 anos

RESULTADO DA BUSCA: 7 DOCUMENTOS

**String 04:** (("agriculture" OR "agricultura") AND ("data mining" OR "mineração de dados") OR ("data classification" OR "classificação de dados") AND ("data quality" OR "qualidade de dados"))

Refinado por: ANOS DE PUBLICAÇÃO: (2020 OR 2018 OR 2017 OR 2016 OR 2019) AND CATEGORIAS DO WEB OF SCIENCE: (COMPUTER SCIENCE

THEORY METHODS OR COMPUTER SCIENCE INFORMATION SYSTEMS OR COMPUTER SCIENCE INTERDISCIPLINARY APPLICATIONS OR AGRICULTURE MULTIDISCIPLINARY OR REMOTE SENSING OR ENGINEERING MULTIDISCIPLINARY OR SOIL SCIENCE OR AGRICULTURAL ENGINEERING)

Tempo estipulado: Últimos 5

**RESULTADO DA BUSCA: 96 DOCUMENTOS** 

**String 05:** (("agriculture" OR "agricultura") AND ("unstructured data" OR "dados não estruturados") AND ("big data") OR ("unstructured data analysis" OR "análise de dados não estruturados") AND ("data sources" OR "fonte de dados")) Tempo estipulado: Últimos 5

**RESULTADO DA BUSCA: 3 DOCUMENTOS** 

String 06: (("agriculture" OR "agricultura") AND ("database" OR "base de dados") AND ("cloud" OR "nuvem") AND "big data" OR ("heterogeneous data sources" OR "bases de dados heterogêneas") AND ("data vector" OR "vetor para dados") AND ("decision model" OR "modelo de decisão") AND ("data warehouse" OR "armazém de dados") AND "big data warehouse" AND "data lake" AND "nosql" AND ("method for data sources" OR "método para banco de dados") AND ("data mining" OR "mineração de dados") AND ("data classification" OR "classificação de dados") AND ("data quality" OR "qualidade de dados"))

Refinado por: ANOS DE PUBLICAÇÃO: (2019 OR 2018 OR 2017)

RESULTADO DA BUSCA: 8 DOCUMENTOS

Dados de Strings do Segmento (2)

(AM-120520-SCOPUS-SEG-02) base Scopus (21 documentos de retorno) (em 12/05/2020)

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String 01: ALL (("agriculture" OR "data vector" AND "big data" AND "decision model" AND "digital image" OR "soybean culture" OR "pattern recognition" OR "classification techniques")) AND (LIMIT-TO (PUBYEAR, 2020) OR LIMIT-TO (PUBYEAR, 2019) OR LIMIT-TO (PUBYEAR, 2018) OR LIMIT-TO (PUBYEAR, 2017) OR LIMIT-TO (PUBYEAR, 2016)) AND (LIMIT-TO (SUBJAREA, "COMP") OR LIMIT-TO (SUBJAREA, "DECI") OR LIMIT-TO (SUBJAREA, "AGRI"))

**RESULTADO DA BUSCA: 11 DOCUMENTOS** 

String 02: ("agriculture" AND "data mining" AND "machine learning" AND "image processing methods" OR "data processing techniques" OR "soybean disease" AND "remote sensing") AND (LIMIT-TO (PUBYEAR, 2020) OR LIMIT-TO (PUBYEAR, 2019) OR LIMIT-TO (PUBYEAR, 2018) OR LIMIT-TO (PUBYEAR, 2017) OR LIMIT-TO (PUBYEAR, 2016)) AND (LIMIT-TO (SUBJAREA, "AGRI") OR LIMIT-TO (SUBJAREA, "COMP"))

**RESULTADO DA BUSCA: 10 DOCUMENTOS** 

String 02: ("systematic review" OR "revisão sistemática") AND ("vector for data" OR "data vector" OR "vetor de dados") OR "big data" AND ("decision model" OR "modelo de decisão") OR ("digital image" OR "imagem digital") OR ("pattern recognition" OR "reconhecimento de padrões") AND ("agriculture" OR "agricultura") OR ("soybean culture" OR "cultura de soja") OR ("soybean disease" OR "doença da soja") AND ("image processing methods" OR "Métodos de Processamento de Imagens") OR ("data processing techniques" OR "técnicas de processamento de dados") OR ("remote sensing" OR "sensoriamento remoto") AND (LIMIT-TO (SUBJAREA, "COMP") OR LIMIT-TO (SUBJAREA, "ENGI") OR LIMIT-TO (SUBJAREA, "DECI")) AND (LIMIT-TO (PUBYEAR, 2018)) OR LIMIT-TO (PUBYEAR, 2019) OR LIMIT-TO (PUBYEAR, 2018)) OR LIMIT-TO (PUBYEAR, 2017) OR LIMIT-TO (PUBYEAR, 2016))

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(AM-120520-IEEE-SEG-02) base IEEE (355 documentos de retorno) (em 12/05/2020)

**String 01:** ("agriculture" AND "data vector" AND "big data" OR "decision model" OR "digital image" AND "soybean culture" OR "pattern recognition" AND "classification techniques")

Filters Applied:

pattern classification image classification decision support systems probability cloud computing

2016 - 2020

RESULTADO DA BUSCA: 79 DOCUMENTOS (em 15/05/2020)

**String 02:** ("agriculture" AND "data mining" OR "machine learning" AND "image processing methods" AND "data processing techniques" OR "soybean disease" AND "remote sensing")

Filters Applied:

data mining agriculture crops learning (artificial intelligence) Big Data regression analysis remote sensing soil cloud computing irrigation plant diseases 2016 - 2020

RESULTADO DA BUSCA: 217 DOCUMENTOS (em 15/05/2020)

**String 03:** ("systematic review" OR "revisão sistemática") AND ("vector for data" OR "data vector" OR "vetor de dados") AND "big data" AND ("decision model " OR "modelo de decisão") AND ("digital image" OR "imagem digital") AND ("pattern recognition" OR "reconhecimento de padrões") AND ("agriculture" OR "agricultura") AND ("image processing methods" OR "Métodos de Processamento de Imagens") OR ( "data processing techniques" OR "técnicas de processamento de dados")

Filters Applied:

Big Data data analysis learning (artificial intelligence) Internet of Things cloud computing pattern classification remote sensing parallel processing pattern

clustering data handling decision making mobile computing regression analysis data mining

2015 - 2020

RESULTADO DA BUSCA: 59 DOCUMENTOS (em 02/05/2020)

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(AM-020520-WofS-SEG-02) base Web of Science (137 documentos de retorno) (em 02/05/2020)

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String 01: (("agriculture" OR "agricultura") AND ("vector for data" OR "data vector" OR "vetor de dados") AND "big data" OR ("decision model " OR "modelo de decisão") OR ("digital image" OR "imagem digital") AND ("soybean culture" OR "cultura de soja") AND ("pattern recognition" OR "reconhecimento de padrões") AND ("classification techniques" OR "técnicas de classificação")) Refinado por: ANOS DE PUBLICAÇÃO: (2020 OR 2019 OR 2018 OR 2017 OR 2016) AND TÍTULOS DA FONTE: (LECTURE NOTES IN ARTIFICIAL INTELLIGENCE OR LECTURE NOTES IN COMPUTER SCIENCE OR AGRICULTURAL SYSTEMS OR ADVANCES IN INTELLIGENT SYSTEMS AND COMPUTING OR PROCEDIA COMPUTER SCIENCE OR INTERNATIONAL JOURNAL OF ADVANCED COMPUTER SCIENCE AND APPLICATIONS OR INTERNATIONAL JOURNAL OF INFORMATION TECHNOLOGY DECISION MAKING OR JOURNAL OF DECISION SYSTEMS OR ACSR ADVANCES IN COMPTUER SCIENCE RESEARCH OR COMMUNICATIONS IN COMPUTER AND INFORMATION SCIENCE OR DECISION SUPPORT SYSTEMS ) AND ANOS DE PUBLICAÇÃO: (2019 OR 2018 OR 2017 OR 2016) RESULTADO DA BUSCA: 81 DOCUMENTOS (em 15/04/2020)

**String 02:** (( "agriculture" OR "agricultura") AND ("data mining" OR "mineração de dados") OR ("machine learning" OR "aprendizado de máquina") AND ("image processing methods" OR "método de processamento de imagem") AND ("data processing techniques" OR "técnicas para processamento de dados") OR ("soybean disease" OR "doença da soja") AND ("remote sensing" OR "sonsoriamento remoto"))

Refinado por: ANOS DE PUBLICAÇÃO: (2020 OR 2019 OR 2018 OR 2017 OR 2016 ) AND TÍTULOS DA FONTE: ( COMPUTERS AND ELECTRONICS IN AGRICULTURE OR BIG DATA BIGDATA 2019 OR REMOTE SENSING OR 2017 IEEE 2ND INTERNATIONAL CONFERENCE ON BIG DATA ANALYSIS ICBDA OR 2017 IEEE INTERNATIONAL CONFERENCE ON INTELLIGENT TECHNIQUES IN CONTROL OPTIMIZATION AND SIGNAL PROCESSING INCOS OR 2017 IEEE INTERNATIONAL CONFERENCE ON POWER CONTROL SIGNALS AND INSTRUMENTATION ENGINEERING ICPCSI OR COMPUTER AND COMPUTING TECHNOLOGIES IN AGRICULTURE IX CCTA 2015 PT I OR 2017 IEEE TECHNOLOGICAL INNOVATIONS IN ICT FOR AGRICULTURE AND RURAL DEVELOPMENT TIAR OR DATA MANAGEMENT ANALYTICS AND INNOVATION ICDMAI 2018 VOL 2 OR LECTURE NOTES IN COMPUTER SCIENCE OR PRECISION AGRICULTURE OR PROCEEDINGS OF 2017 INTERNATIONAL CONFERENCE ON INTELLIGENT COMPUTING AND CONTROL I2C2 OR 2018 IEEE 3RD INTERNATIONAL CONFERENCE ON IMAGE VISION AND COMPUTING ICIVC OR 2018 IEEE INTERNATIONAL

CONFERENCE ON BIG DATA BIG DATA OR 2018 INTERNATIONAL CONFERENCE ON ADVANCEMENTS IN COMPUTATIONAL SCIENCES ICACS OR SENSORS OR 2018 INTERNATIONAL JOINT SYMPOSIUM ON ARTIFICIAL INTELLIGENCE AND NATURAL LANGUAGE PROCESSING ISAI NLP 2018 OR 2019 6TH INTERNATIONAL CONFERENCE ON SIGNAL PROCESSING AND INTEGRATED NETWORKS SPIN OR INTERDISCIPLINARY REVIEWS DATA MINING AND KNOWLEDGE DISCOVERY OR 2019 IEEE INTERNATIONAL GEOSCIENCE AND REMOTE SENSING SYMPOSIUM IGARSS 2019 OR 2019 INTERNATIONAL CONFERENCE ON MULTIMEDIA ANALYSIS AND PATTERN RECOGNITION MAPR OR IEEE INTERNATIONAL CONFERENCE ON BIG DATA OR 8TH IBERIAN CONGRESS OF AGROENGINEERING CHALLENGES OF THE NEW MEDITERRANEAN AGRICULTURE OR 2016 INTERNATIONAL CONFERENCE ON COMPUTING TECHNOLOGIES AND INTELLIGENT DATA ENGINEERING ICCTIDE 16 OR IEEE INTERNATIONAL SYMPOSIUM ON GEOSCIENCE AND REMOTE SENSING IGARSS )

RESULTADO DA BUSCA: 35 DOCUMENTOS (em 15/04/2020)

**String 03:** ("systematic review" OR "revisão sistemática") AND ("vector for data" OR "data vector" OR "vetor de dados") AND "big data" AND ("decision model " OR "modelo de decisão") AND ("digital image" OR "imagem digital") AND ("pattern recognition" OR "reconhecimento de padrões") AND ( "agriculture" OR "agricultura") AND ("image processing methods" OR "Métodos de Processamento de Imagens") OR ("data processing techniques" OR "técnicas de processamento de dados" ) AND ("remote sensing" OR "sensoriamento remoto")

Refinado por: ANOS DE PUBLICAÇÃO: (2020 OR 2015 OR 2019 OR 2018 OR 2017 OR 2016)

RESULTADO DA BUSCA: 21 DOCUMENTOS (em 02/05/2020)

# Dados de Strings do Segmento (3)

(AM-020520-Scopus-SEG-03) base Scopus (78 documentos de retorno) (em 02/05/2020)

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**String 01:** ("agriculture" AND "digital agricultural image" AND "asian soybean rust" AND "phakopsora pachyrhizi" AND "crop pattern recognition" AND "classification techniques" AND "data fusion" AND "Information fusion" AND "risk model" AND "risk analysis" AND "risk map" AND "machine learning" AND "image processing methods") OR ("soybean disease" AND "remote sensing") AND PUBYEAR > 2015 AND PUBYEAR < 2021 AND (LIMITTO (SUBJAREA, "AGRI") OR LIMITTO (SUBJAREA, "COMP")) AND (LIMITTO (LANGUAGE, "English"))

RESULTADO DA BUSCA: 34 DOCUMENTOS (em 31/03/2020)

**String 02:** ("agriculture" AND "digital agricultural image" OR "asian soybean rust" OR "phakopsora pachyrhizi" OR "crop pattern recognition" OR

"classification techniques" AND "data fusion" AND "Information fusion") AND (LIMIT-TO (PUBYEAR, 2020) OR LIMIT-TO (PUBYEAR, 2019) OR LIMIT-TO (PUBYEAR, 2018) OR LIMIT-TO (PUBYEAR, 2017) OR LIMIT-TO (PUBYEAR, 2016)) AND (LIMIT-TO (LANGUAGE, "English")) RESULTADO DA BUSCA: 29 DOCUMENTOS (em 15/05/2020)

String 03: ("agriculture" OR "digital agricultural image" AND "risk model" OR "risk analysis" AND "risk map" AND "risk management" OR "machine learning" AND "image processing methods" OR "soybean disease" OR "remote sensing") AND (LIMIT-TO (SUBJAREA, "AGRI") OR LIMIT-TO (SUBJAREA, "COMP")) AND (LIMIT-TO (PUBYEAR, 2020) OR LIMIT-TO (PUBYEAR, 2019) OR LIMIT-TO (PUBYEAR, 2018) OR LIMIT-TO (PUBYEAR, 2017) OR LIMIT-TO (PUBYEAR, 2016)) AND (LIMIT-TO (LANGUAGE, "English")) RESULTADO DA BUSCA: 15 DOCUMENTOS (em 15/05/2020)

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(AM-020520-IEEE-SEG-03) base IEEE (248 documentos de retorno) (em 15/05/2020)

**String 01:** ("agriculture" AND "digital agricultural image" AND "asian soybean rust" AND "phakopsora pachyrhizi" AND "crop pattern recognition" AND "classification techniques" AND "data fusion" AND "Information fusion" AND "risk model" AND "risk analysis" AND "risk map" OR "machine learning" AND "image processing methods") OR ("soybean disease" AND "remote sensing") Filters Applied:

learning (artificial intelligence) image segmentation image classification image processing

2016 - 2020

#### RESULTADO DA BUSCA: 23 DOCUMENTOS (em 15/05/2020)

**String 02:** ("agriculture" AND "digital agricultural image" AND "asian soybean rust" AND "phakopsora pachyrhizi" OR "crop pattern recognition" AND "classification techniques" AND "data fusion" OR "Information fusion") Filters Applied:

Journals

sensor fusion image fusion geophysical image processing Bayes methods computer vision

2016 - 2020

# RESULTADO DA BUSCA: 200 DOCUMENTOS (em 15/05/2020)

**String 03:** ("agriculture" AND "digital agricultural image" AND "risk model" OR "risk analysis" AND "risk map" AND "risk management" OR "machine learning" AND "image processing methods" OR "soybean disease" AND "remote sensing")

Filters Applied:

learning (artificial intelligence) image classification image processing image enhancement computer vision data analysis document image processing image resolution risk analysis Big Data Fourier transforms 2016 - 2020

# RESULTADO DA BUSCA: 25 DOCUMENTOS (em 15/05/2020)

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(AM-020520-WofS-SEG-03) base Web of Science (86 documentos de retorno) (em 15/05/2020)

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**String 01:** ("agriculture" AND "digital agricultural image" AND "asian soybean rust" AND "phakopsora pachyrhizi" AND "crop pattern recognition" AND "classification techniques" AND "data fusion" AND "Information fusion" AND "risk model" AND "risk analysis" AND "risk map" AND "machine learning" AND "image processing methods" OR "soybean disease" AND "remote sensing") **RESULTADO DA BUSCA: 1 DOCUMENTOS (em 15/05/2020)** 

**String 02:** (("agriculture" AND "digital agricultural image" OR "asian soybean rust" AND "phakopsora pachyrhizi" OR "crop pattern recognition" AND "classification techniques" AND "data fusion"))

Refinado por: ANOS DE PUBLICAÇÃO: (2020 OR 2019 OR 2018 OR 2017 OR 2016) AND CATEGORIAS DO WEB OF SCIENCE: (PLANT SCIENCES OR AGRICULTURE MULTIDISCIPLINARY OR AGRICULTURAL ENGINEERING OR COMPUTER SCIENCE INTERDISCIPLINARY APPLICATIONS)

RESULTADO DA BUSCA: 43 DOCUMENTOS (em 15/05/2020)

**String 03:** (("agriculture" AND "digital agricultural image" OR "risk model" AND "risk analysis" OR "risk map" AND "risk management" OR "machine learning" AND "image processing methods" AND "soybean disease" AND "remote sensing"))

Refinado por: ANOS DE PUBLICAÇÃO: (2020 OR 2019 OR 2018 OR 2017 OR 2016) AND CATEGORIAS DO WEB OF SCIENCE: (IMAGING SCIENCE PHOTOGRAPHIC TECHNOLOGY OR COMPUTER SCIENCE INFORMATION SYSTEMS OR ENGINEERING MULTIDISCIPLINARY OR COMPUTER SCIENCE ARTIFICIAL INTELLIGENCE OR COMPUTER SCIENCE INTERDISCIPLINARY APPLICATIONS OR AGRICULTURAL ENGINEERING OR AGRICULTURE MULTIDISCIPLINARY OR COMPUTER SCIENCE THEORY METHODS OR REMOTE SENSING OR STATISTICS PROBABILITY) RESULTADO DA BUSCA: 42 DOCUMENTOS (em 15/05/2020)

Dados de Strings do Segmento (4)

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(AM-310320-Scopus-SEG-04) base Scopus (115 documentos de retorno) (em 15/05/2020)

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String 01: ("agriculture" AND "climate variables" AND "environment parameters" OR "soil variety" OR "soil fertility" OR "soybean disease" OR "asian soybean rust" OR "Phakopsora pachyrhizi") AND (LIMIT-TO (PUBYEAR, 2019) OR LIMIT-TO (PUBYEAR, 2019) OR LIMIT-TO (PUBYEAR, 2017) OR LIMIT-TO (PUBYEAR, 2016)) AND (LIMIT-TO (LANGUAGE, "English")) AND (LIMIT-TO (SUBJAREA, "MULT") OR

LIMIT-TO (SUBJAREA, "ENGI") OR LIMIT-TO (SUBJAREA, "COMP") OR LIMIT-TO (SUBJAREA, "DECI"))
RESULTADO DA BUSCA: 41 DOCUMENTOS (em 15/05/2020)

String 02: ("agriculture" AND "climate variables" AND "environment parameters" OR "soil variety" OR "soil fertility" OR "Data vector" OR "decision model" OR "data fusion" OR "Information fusion" OR "risk model" AND "image processing methods" OR "remote sensing") AND (LIMIT-TO (PUBYEAR, 2019) OR LIMIT-TO (PUBYEAR, 2019) OR LIMIT-TO (PUBYEAR, 2017) OR LIMIT-TO (PUBYEAR, 2016)) AND (LIMIT-TO (LANGUAGE, "English")) AND (LIMIT-TO (SUBJAREA, "AGRI") OR LIMIT-TO (SUBJAREA, "BUSI"))

RESULTADO DA BUSCA: 24 DOCUMENTOS (em 15/05/2020)

String 03: ("agriculture" AND "climate variables" OR "environment parameters" OR "soil variety" AND "soil fertility" OR "soybean disease" OR "asian soybean rust" OR "Phakopsora pachyrhizi") OR ("Data vector" AND "decision model" AND "data fusion" OR "Information fusion" AND "risk model" AND "image processing methods" AND "remote sensing") AND (LIMIT-TO (PUBYEAR, 2020) OR LIMIT-TO (PUBYEAR, 2019) OR LIMIT-TO (PUBYEAR, 2017) OR LIMIT-TO (PUBYEAR, 2016) OR LIMIT-TO (PUBYEAR, 2015)) AND (LIMIT-TO (SUBJAREA, "AGRI") OR LIMIT-TO (SUBJAREA, "COMP")) AND (LIMIT-TO (LANGUAGE, "English"))

RESULTADO DA BUSCA: 50 DOCUMENTOS (em 31/03/2020)

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(AM-310320-IEEE-SEG-04) base IEEE (68 documentos de retorno) (em 15/05/2020)

**String 01:** ("agriculture" AND "climate variables" AND "environment parameters" AND "soil variety" AND "soil fertility" OR "soybean disease" OR "asian soybean rust" OR "Phakopsora pachyrhizi") Filters Applied:

2016 - 2019

RESULTADO DA BUSCA: 2 DOCUMENTOS (em 15/05/2020)

**String 02:** ("agriculture" AND "climate variables" AND "environment parameters" AND "soil variety" AND "soil fertility" AND "Data vector" AND "decision model" AND "data fusion" AND "Information fusion" AND "risk model" OR "image processing methods" AND "remote sensing") Filters Applied:

2016 - 2020

RESULTADO DA BUSCA: 16 DOCUMENTOS (em 15/05/2020)

**String 03:** ("agriculture" AND "climate variables" OR "environment parameters" OR "soil variety" AND "soil fertility" OR "soybean disease" OR "asian soybean rust" OR "Phakopsora pachyrhizi") OR ("Data vector" AND

"decision model" AND "data fusion" OR "Information fusion" AND "risk model" AND "image processing methods" AND "remote sensing") AND (LIMIT-TO (PUBYEAR, 2020) OR LIMIT-TO (PUBYEAR, 2019) OR LIMIT-TO (PUBYEAR, 2018) OR LIMIT-TO (PUBYEAR, 2017) OR LIMIT-TO (PUBYEAR, 2016) OR LIMIT-TO (PUBYEAR, 2015)) AND (LIMIT-TO (SUBJAREA, "AGRI") OR LIMIT-TO (SUBJAREA, "COMP")) AND (LIMIT-TO (LANGUAGE, "English"))

RESULTADO DA BUSCA: 50 DOCUMENTOS (em 31/03/2020)

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(AM-150520-WofS-SEG-04) base Web of Science (219 documentos de retorno) (em 15/05/2020)

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**String 01:** (("agriculture" AND "climate variables" AND "environment parameters" AND "soil variety" AND "soil fertility" AND "soybean disease" OR "asian soybean rust" AND "Phakopsora pachyrhizi"))

Refinado por: ANOS DE PUBLICAÇÃO: (2020 OR 2019 OR 2018 OR 2017 OR 2016) AND CATEGORIAS DO WEB OF SCIENCE: (PLANT SCIENCES OR AGRONOMY OR AGRICULTURE MULTIDISCIPLINARY OR AGRICULTURAL ENGINEERING OR COMPUTER SCIENCE INTERDISCIPLINARY APPLICATIONS)

RESULTADO DA BUSCA: 51 DOCUMENTOS (em 15/05/2020)

**String 02:** (("agriculture" AND "climate variables" AND "environment parameters" AND "soil variety" AND "soil fertility" OR "Data vector" OR "decision model" AND "data fusion" OR "Information fusion" AND "risk model" AND "image processing methods" AND "remote sensing"))

Refinado por: ANOS DE PUBLICAÇÃO: (2020 OR 2019 OR 2018 OR 2017 OR 2016) AND CATEGORIAS DO WEB OF SCIENCE: (COMPUTER SCIENCE THEORY METHODS OR COMPUTER SCIENCE INFORMATION SYSTEMS OR COMPUTER SCIENCE ARTIFICIAL INTELLIGENCE OR COMPUTER SCIENCE INTERDISCIPLINARY APPLICATIONS OR STATISTICS PROBABILITY OR IMAGING SCIENCE PHOTOGRAPHIC TECHNOLOGY OR COMPUTER SCIENCE SOFTWARE ENGINEERING OR REMOTE SENSING) RESULTADO DA BUSCA: 60 DOCUMENTOS (em 15/05/2020)

**String 03:** "agriculture" AND "climate variables" AND "environment parameters" AND "soil variety" AND "soil fertility" OR "soybean disease" OR "asian soybean rust" OR "Phakopsora pachyrhizi") OR ("Data vector" AND "decision model" AND "data fusion" OR "Information fusion" AND "risk model" AND "image processing methods" AND "remote sensing"))

Refinado por: ANOS DE PUBLICAÇÃO: (2020 OR 2019 OR 2018 OR 2017 OR 2016) AND CATEGORIAS DO WEB OF SCIENCE: (PLANT SCIENCES OR AGRICULTURE MULTIDISCIPLINARY OR COMPUTER SCIENCE INTERDISCIPLINARY APPLICATIONS OR COMPUTER SCIENCE THEORY METHODS OR AGRICULTURAL ENGINEERING OR REMOTE SENSING OR COMPUTER SCIENCE INFORMATION SYSTEMS)

RESULTADO DA BUSCA: 108 DOCUMENTOS (em 31/03/2020)

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(AM-080320-Embrapa-SEG-1-2-3-4) base Embrapa (465 documentos de retorno) (em 15/05/2020) - (https://www.alice.cnptia.embrapa.br/)

**String 01:** ("agriculture" OR "agricultura") AND ("database" OR "base de dados") AND ("cloud" OR "nuvem") or ("big data" OR "big data analytics" OR "data analysis") OR ("heterogeneous data sources" OR "bases de dados heterogêneas")

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Filtro "Ano de Publicação" = 2020 (6 documentos)
Filtro "Ano de Publicação" = 2019 (32 documentos)
Filtro "Ano de Publicação" = 2018 (37 documentos)
Filtro "Ano de Publicação" = 2017 (25 documentos)
Filtro "Ano de Publicação" = 2016 (28 documentos)
RESULTADO DA BUSCA: 128 DOCUMENTOS (em 16/05/2020)
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**String 02:** ("agriculture" OR "agricultura") AND ("method image processing" OR "método para processamento de imagens") AND ("pattern recognition" OR "reconehcimento de padrões") AND ("classification algorithms" OR "algoritmos de classificação") OR ("crops" OR "cultivo") OR ("remote sensing" OR "sensoriamento remoto") OR ("digital images" OR "imagens digitais") OR ("risk managment" OR "gerenciamento de risco") OR ("soybean" OR "soja")

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Filtro "Ano de Publicação" = 2020 (4 documentos)
Filtro "Ano de Publicação" = 2019 (33 documentos)
Filtro "Ano de Publicação" = 2018 (44 documentos)
Filtro "Ano de Publicação" = 2017 (38 documentos)
Filtro "Ano de Publicação" = 2016 (14 documentos)
RESULTADO DA BUSCA: 133 DOCUMENTOS (em 16/05/2020)
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String 03: ("agriculture" OR "agricultura") AND ("climate variables" OR "variáveis climáticas") AND ("environment parameters" OR "parâmetros de ambiente") OR ("soil variety" OR "variedade de solo") OR ("soil fertility" OR "fertilidade de solo") AND ("soybean disease" OR "doença da soja") OR ("asian soybean rust" OR "ferrugem asiática da soja") OR "Phakopsora pachyrhizi" OR ("Data vector" OR "vetor de dados") OR ("decision model" OR "modelo de decisão") OR ("data fusion" OR "fusão de dados") OR ("Information fusion" OR "informação de fusão") OR ("risk model" OR "modelo de risco") OR ("image processing methods" OR "método para processamento de imagens") OR ("remote sensing" OR "sensoriamento remoto")

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Filtro "Ano de Publicação" = 2020 (1 documentos)
Filtro "Ano de Publicação" = 2019 (12 documentos)
Filtro "Ano de Publicação" = 2018 (11 documentos)
Filtro "Ano de Publicação" = 2017 (5 documentos)
Filtro "Ano de Publicação" = 2016 (12 documentos)
RESULTADO DA BUSCA: 41 DOCUMENTOS (em 16/05/2020)
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**String 04:** ("agriculture" OR "agricultura") OR ("data mining" OR "mineração de dados") OR ("machine learning" OR "aprendizado de máquina") AND ("image processing methods" OR "métodos de processamento de imagens") OR ("data processing techniques" OR "técnica de processamento de dados") OR ("soybean disease" OR "doença da soja") OR ("remote sensing" OR "sensoriamento remoto")

Filtro "Ano de Publicação" = 2020 (5 documentos)
Filtro "Ano de Publicação" = 2019 (48 documentos)
Filtro "Ano de Publicação" = 2018 (52 documentos)
Filtro "Ano de Publicação" = 2017 (37 documentos)
Filtro "Ano de Publicação" = 2016 (21 documentos)
RESULTADO DA BUSCA: 163 DOCUMENTOS (em 16/05/2020)

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