**NUTRITION ANALYSER FOR FITNESS**

**ENTHAUSIEST**

**ARTIFICIAL INTELLIGENCE**

**TEAM MEMBEERS:**

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| **S.NO** | **TITTLE** | **AUTHOR** | **YEAR OF**  **PUBLICATION** | **PROBLEM**  **IDENTIFIED** | **TECHNIQUES**  **USED** |  |
| 1. | Leveraging traditional  crops for  better  nutrition and  health - The case of  chickpea | ShahalAbbo  et.al., | June 2017 | Although poor feeding  practices is a problem  predominantly thought to  exist in low-  income and  middle income countries,  malnutrition is  rapidly rising among  developed nations as well. | In this context, and in light of scarcity of protein sources,  utilization of crops-  such as chickpea-as a source of micro  and macro nutrients  is mandatory in the long route to nutritional improvement. | For all these reasons, this crop should be  considered as an  outstanding source of protein, the ultimate  alternative to  soybeans, as well  as the next healthfood for human consumption.  View at infona.pl |
| 2. | Machine learning and artificial  intelligence based  Diabetes  Mellitus detection and selfmanagement:  A systematic review | JyotismitaChaki et.al., | Aug 2017 | Diabetes  Mellitus (DM) is a condition induced by  unregulated  diabetes that may lead to multi-organ failiure in patients | This review delivers an analysis of the  detection, diagnosis, and self-  management  techniques of DM from six different  facets viz., datasets of DM, pre-  processing  methods, feature  extraction methods, machine learning-  based identification,  classification, and  diagnosis of DM,  artificial  intelligence-based intelligent DM assistant and performance measures. | There are two drawbacks to this study. First, only papers written  between January  2015 and March  2020 have been included in this  study. Second, it  might be that the authors have  overlooked certain  valuable keywords and certain  bibliographic  sources that might  have some relevant papers |

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| 3. | The forthcoming  Artificial  Intelligence  (AI) revolution: Its impact on society  and firms | Spyros  Makridakis | June 2017 | Will the forthcoming AI revolution produce  similar, farreaching effects. | The paper concludes that significant  competitive  advantages will  continue to accrue  to those utilizing the  Internet widely and willing to  take entrepreneurial  risksin order to turn innovative  products/services into worldwide  commercial success stories. | The greatest challenge facing  societies and firms  would be utilizing  the benefits of availing AI  technologies,  providing vast  opportunities for both new  products/services and immense productivity  improvements  while avoiding the dangers and  disadvantages in  terms of increased  unemployment and greater  wealth inequalities. |
| 4. | A Survery on  Automated food  Monitoring and Dietary  Management System | Vieira Bruno | Aug 03 2017 | In order to provide users  feedback with nutritional  information  accompanied by insightful  dietary advice, various  techniques in  light of the key  computational learning  principles have been explored. | the goal to conquer drawbacks of the  traditional manual  food journaling that  is time consuming, inaccurate,  underreporting, and low adherent. | the prevention of life-threatening  diseases such as obesity,  cardiovascular disease, and cancer. |
| 5. | A review on  IoT based m-  Health systems for diabetes | diabetesSankalp  Deshkar | Jan 2017 | Long-term diabetes care requires  involvement  from patients as well as  doctors and family caregivers | With rapid advancements in  wireless and web  technologies, a number of  applications based on Internet of  Things have been proposed for  management of diabetes. | We analyze the working and underlying  architecture of these latest  applications and  discuss the major issues and  challenges faced by them. |

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| 1. | Artificial intelligence  for diabetes  management and decision support:  literature review | Ivan  Contrera s, Josep  Vehi | Dec 2018 | The objective of this paper is to review recent efforts to use  artificial intelligence techniques to  assist in the  management  of diabetes, along with the associated challenges. | A review of  the literature was conducted using  PubMed and related bibliographic resources. Analyses of the literature from 2010 to  2018 yielded 1849 pertinent articles, of which we selected 141 for detailed review. Results | Our results indicate that artificial intelligence methods are being progressively established as suitable for use in clinical daily practice, as well as for the self-  management of diabetes. Consequentl y, these  methods provide powerful tools for improving patients’ quality of life. |
| 2. | Food, microbiome and colorectal cancer | Lukas  Niederreiter et.al., | June 2018 | This adage has been confirmed by many studies demonstratin g the high impact of nutrition on risk of cardiovascula  r diseases, many malignancies and other diseases | Various aspects are involved in colorectal carcinoma pathogenesis including genetics, lifestyle, age, chronic inflammation and others | It has only recently been recognized that the gut microbiota might reflect an important missing link in the interaction between diet and subsequent |

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| 3. | Recommendations to  maintain immune health in athletes | Neil P  Walsh et.al., | Mac 2018 | the prominent  risk factors and appropriate countermeasures. Recent studies have identified prominent  risk factors, including: intensified training in the winter; long-haul travel; low energy  availability; high levels of ps | Both innate and acquired immunity are often reported to decrease transiently in the hours after heavy exertion, typically 15– 70%: prolonged heavy  training  sessions in  particular  have been shown to  decrease immune  function; potentially providing an ‘open window’ for opportunistic infections. | The  various challenges that athletes encounter on immune  health, including:  heavy exercise; life stress; sleep disruption; environment al extremes and nutritional deficits. |
| 4. | The role of diet in  multiple  sclerosis: A review | Sabrina  Esposito et.al., | July 2018 | Since nutritional status and dietary habits in MS patients have not been extensively reported, the lack of a scientificbased consensus on dietary  recommenda  tion in MS could encourage  many  patients to experiment alternative dietetic | This work investigates the health implications  of an unbalanced diet in MS, and collects recent findings on nutrients of  great interest among MS  patients and physicians | the disease and to encourage future studies  demonstrati ng the role of a healthy diet on the onset and course of MS. |
|  |  |  |  | regimens, increasing the risk of malnutrition. |  |  |
| 5. | Heavy metal exposure and nasal  Staphylococc us aureus  colonization:  analysis of  the National  Health and  Nutrition  Examination  Survey  (NHANES) | Shoshan nah  Eggers et.al., | April 2018 | Infection by methicillinresistant  Staphylococc us aureus (MRSA) is a major cause of global morbidity and mortality | The analytical sample consisted of 18,626 participants aged 1 year and older. Multivariate logistic regression, including  adjustment for  demographic and dietary factors, was used to analyze the association between blood Pb and Cd, and nasal colonization by MRSA and MSSA. | While further research is needed, reduction in heavy metal exposures such as lead, concurrently with maintaining a healthy microbiota may be two modifiable options to consider in the fight against antibioticresistance. |