# CURRICULUM VITAE

| **A. BUTIR-BUTIR PERIBADI** ***(Personal Details)*** | | | |
|---|---|---|---|
| Nama Penuh *(Full Name)* | NUR SHARMILA SHARIP | | Gelaran *(Title):*TS. DR. |
| No. MyKad / No. Pasport<br>*(Mykad No. / Passport No.)*<br>900722-01-5508 | Warganegara<br>*(Citizenship)*<br>MALAYSIA | Bangsa<br>*(Race)*<br>MELAYU | Jantina<br>*(Gender)*<br>MALAYSIA |
| Jawatan *(Designation)* | PENSYARAH KANAN | Tarikh Lahir<br>*(Date of Birth)* | 22th JULY 1990 |

| Alamat Semasa *(Current Address)* | Jabatan/Fakulti *(Department/Faculty)* | E-mel dan URL *(E-mail Address and URL)* |
|---|---|---|
| DEPARTMENT OF BIOPROCESS TECHNOLOGY,<br>FACULTY OF BIOTECHNOLOGY AND BIOMOLECULAR SCIENCES, UNIVERSITI PUTRA MALAYSIA,<br>Tel: 013-7439302 | | E-mail:<br>nursharmila@upm.edu.my<br>URL:<br>http://biotech.upm.edu.my<br>https://orcid.org/my-orcid?orcid=0000-0003-3322-9592 |

| **B. KELAYAKAN AKADEMIK** ***(Academic Qualification)*** | | | |
|---|---|---|---|
| Nama Sijil / Kelayakan<br>*(Certificate / Qualification obtained)* | Nama Sekolah Institusi<br>*(Name of School / Institution)* | Tahun<br>*(Year obtained)* | Bidang pengkhususan<br>*(Area of Specialization)* |
| PhD | Universiti Putra Malaysia | 2022 | Green Engineering |
| MSc | Universiti Putra Malaysia | 2016 | Environmental Biotechnology |
| Bachelor of Science | Universiti Putra Malaysia | 2012 | Biotechnology |

| **C. KEMAHIRAN BAHASA** *(Language Proficiency)* | | | | | |
|---|---|---|---|---|---|
| Bahasa / *Language* | Lemah<br>*Poor (1)* | Sederhana<br>*Moderate (2)* | Baik<br>*Good (3)* | Amat Baik<br>*Very good (4)* | Cemerlang<br>*Excellent (5)* |
| English | | | | √ | |
| Bahasa Melayu | | | | | √ |
| Chinese | | | | | |
| Lain-lain *(other):* | | | | | |

| **D. PENGALAMAN SAINTIFIK DAN PENGKHUSUSAN** *(Scientific experience and Specialisation)* | | | | |
|---|---|---|---|---|
| *Organization* | *Position* | *Start Date* | *End Date* | *Expertise* |
| Universiti Putra Malaysia | Pensyarah Kanan | May 2024 | To date | Bioprocess Design, Bioentrepreneurship |
| Nexgreen Global Berhad | Eksekutif Kanan *R&D* | 2022 | 2024 | Pulp & Paper Technology, Biobased Product, Environmental Technology. |
| Universiti Putra Malaysia | Penyelidik Pasca Siswazah | 2018 | 2022 | Biocomposite Technology, Lignocellulose-based Products, Environmental Technology. |
| Kyushu Institute of Technology, Japan | Penyelidik Pasca SIswazah | 2018 | 2019 | Biocomposite Technology, Lignocellulose-based Products, Environmental Technology, Cell culture. |
| Halal Products Research Institute, Universiti Putra Malaysia | Pembantu Penyelidik | 2017 | 2017 | Protein profiling, Protein Extraction. |
| Universiti Putra Malaysia | Penyelidik Pasca Siswazah | 2013 | 2016 | Lignocellulose-based Products, Environmental Technology. |

| **E. PEKERJAAN** ***(Employment)*** | | | | |
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| Majikan */ Employer* | Jawatan */ Designation* | Jabatan / *Department* | Tarikh lantikan / *Start Date* | Tarikh tamat / *Date Ended* |
| Universiti Putra Malaysia | Pensyarah Kanan | Teknologi Bioproses | Mei 2024 | *To date* |
| Nexgreen Global Berhad | Eksekutif Kanan Penyelidikan (*R&D*) | *Research & Development* | Jan 2022 | April 2024 |
| Institut Perhutanan Tropika Dan Produk Hutan, UPM | Penyelidik Pasca-Siswazah | *Environmental Biotechnology Group* | Feb 2018 | Dec 2021 |
| Institut Penyelidikan Produk Halal, Upm | Pembantu Penyelidik | Laboratori Penyelidikan Sains Halal (LAPSAH) | April 2017 | September 2017 |
| Fbsb, Upm | Penyelidik Pasca-Siswazah | Teknologi Bioproses | September 2012 | October 2016 |

| **F. ANUGERAH DAN HADIAH** *(Honours and Awards)* | | | | |
|---|---|---|---|---|
| *Name of awards* | *Title* | *Award Authority* | *Award Type* | *Year* |
| *Academic Awards* | *Japan Student Services Organization (JASSO) Scholarship* | JICA, Japan | *Scholarship* | 2019 |
| | *Japan Student Services Organization (JASSO) Scholarship* | JICA, Japan | *Scholarship* | 2018 |
| | *Graduate Research* | UPM | *Fellowship* | 2018 |

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| | *Fellowship Fund* | | | |
| | *MyBrain15 Scholarship* | MOHE, Malaysia | *Scholarship* | 2013 |
| | *Graduate Research Fellowship Fund* | UPM | *Fellowship* | 2013 |
| *Non-Academic Awards* | *Outstanding & Gold Innovation Award (Innovation title: Sustainable Food Packaging from Empty Fuit Bunches Cellulosis Fibres)* | *Malaysia Technology Expo 2023* | *Research* | 2023 |
| | *Gold Innovation Award (Innovation title: Preconditioning Refiner Chemical-Recycle Bleached Mechanised Pulp Technology for Oil Palm Fibre-Pulp Production)* | *Malaysia Technology Expo 2023* | *Research* | 2023 |
| | *Gold Innovation Award (Innovation title: Green Technology Park: The Next Generation of Green)* | *Malaysia Technology Expo 2023* | *Research* | 2023 |
| | *Gold Award Five Minutes Thesis (5MT) Competition* | *IKRAM Academia* | *Competition* | 2021 |
| | *Silver Award Post-Graduate Poster Competition Open Day 2020.* | INTROP UPM | *Competition* | 2020 |
| | *Best Poster Award* | *8th International Symposium on Applied Engineering and Sciences* | *Conference* | 2020 |
| | *Silver Award UPM Three Minutes Thesis (3MT) Final Competition* | UPM | *Competition* | 2019 |
| | *Gold Award INTROP Three Minutes Thesis (3MT) Competition* | INTROP, UPM | *Competition* | 2019 |
| *Awards of Merit* | - | - | - | - |

| **G. SENARAI PENERBITAN (Sila masukan nama pengarang, tajuk, nama jurnal, jilid, muka surat dan tahun diterbitkan)** *(List of publications – author (s), title, journal, volume, page and year published)* | |
|---|---|
| *Journal* | 1. Izan, N.L.M., Bahrin, E.K., Yusoff, M.Z.M., Simarani, K., **Sharip, N.S.**, & Ariffin, H. (Under review). Sustainable utilisation of oil palm empty fruit bunch and *Perenniporia subtephropora* for eco-friendly mycelium-based biofoam. *Biocatalysis and Agricultural Biotechnology* .<br>2. Lim, K.Y., Yasim-Anuar, T.A.T., **Sharip, N.S**., 2023. Green Phenolic Resins from Oil Palm Empty Fruit Bunch (EFB) Phenolated Lignin and Bio-Oil as |

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| | Phenol Substitutes for Bonding Plywood. *Polymers, 15(5),* p.1258.<br>3. **Sharip, N.S.**, Tengku Yasim-Anuar, T., Ujang, F. and Faiz Norrrahim, M. (2023) Potato thermoplastic starch nanocomposite films reinforced with nanocellulose. Physical Sciences Reviews.<br>4. **Sharip, N.S.**, Tengku Yasim-Anuar, T., Husin, H. and Norrrahim, M. (2023) Barley thermoplastic starch nanocomposite films reinforced with nanocellulose. Physical Sciences Reviews.<br>5. Norrrahim, M., Janudin, N., Asmal Rani, M., Jenol, M., **Sharip, N.S.**, Nurazzi, N., Asyraf, M. and Ilyas, R. (2023) Wheat thermoplastic starch composite films reinforced with nanocellulose. Physical Sciences Reviews.<br>6. **Sharip, N.S.**, Ariffin, H., Yasim-Anuar, T.A.T., Andou, Y., Shirosaki, Y., Jawaid, M., Tahir, P.M. & Ibrahim, N.A. (2021). Melt-vs. Non-Melt Blending of Complexly Processable Ultra-High Molecular Weight Polyethylene/Cellulose Nanofiber Bionanocomposite. *Polymers*, *13(3),* p.404.<br>7. **Sharip, N.S.**, Ariffin, H., Andou, Y., Bahrin, E.K., Jawaid, M., Tahir, P.M. & Ibrahim, N.A. (2020). Parameters Optimization in Compression Molding of Ultra-high Molecular Weight Polyethylene/Cellulose Nanofiber Bio-nanocomposites by using Response Surface Methodology. *Pertanika Journal of Science and Technology, 28*, p.299 – 316.<br>8. Yasim-Anuar, T.A.T., **Sharip, N.S.**, Noor, L., Megashah, H.A. & Nor, N.A.M. (2020). Cellulose Nanofibers from Waste Paper and their Utilization as Reinforcement Materials in Poly ((R)-3-Hydroxybutyrate-co-(R)-3-Hydroxyhexanoate Bionanocomposite. *Pertanika Journal of Science and Technology*, *28*, pp.259-272.<br>9. **Sharip, N.S.**, Ariffin, H., Andou, Y., Shirosaki, Y., Bahrin, E.K., Jawaid, M., Tahir, P.M. & Ibrahim, N.A. (2020). Process Optimization of Ultra-High Molecular Weight Polyethylene/Cellulose Nanofiber Bionanocomposites in Triple Screw Kneading Extruder by Response Surface Methodology. *Molecules*, *25(19)*, p.4498.<br>10. **Sharip, N.S.** & Ariffin, H. (2019). Cellulose nanofibrils for biomaterial applications. Materials Today: Proceedings, 16, pp.1959-1968.<br>11. **Sharip, N.S.**, Ariffin, H., Hassan, M.A., Nishida, H. & Shirai, Y. (2016). Characterization and application of bioactive compounds in oil palm mesocarp fiber superheated steam condensate as an antifungal agent. *RSC advances*, *6*(88), pp.84672-84683. |
| *Books/Monographs* | |
| *Chapter in book* | 1. Yasim-Anuar, T. A. T., Ariffin, H., Padzil, F. N. M., **Sharip, N.S.**, Yee-Foong, L. N., Shazleen, S. S., Megashah, L.N., Abd-Rahim, N.F. & Hassan, M. A. (2022). Nanocellulose applications in packaging materials. In Industrial Applications of Nanocellulose and Its Nanocomposites (pp. 289-310). Woodhead Publishing.<br>2. Shamsudin, S., Bahrin, E. K., Jenol, M. A., & **Sharip, N.S.** (2022). Characteristics and Potential of Renewable Bioresources. In Renewable Energy from Bio-resources in Malaysia (pp. 21-43). Springer, Singapore.<br>3. Norrrahim, M.N.F., Sapuan, S.M., Yasim-Anuar, T.A.T., Padzil, F.N.M., **Sharip, N.S.**, Ng, L.Y.F., Megashah, L.N., Shazleen, S.S., Rahim, N.F.A., Syafiq, R. & Ilyas, R.A. (2020). Antimicrobial Studies on Food Packaging Materials. In Food Packaging, pp.141-170.<br>4. **Sharip, N.S.**, Yasim-Anuar, T.A.T., Norrrahim, M.N.F., Shazleen, S.S., Nurazzi, N.M., Sapuan, S.M. & Ilyas, R.A. (2020). A review on nanocellulose composites in biomedical application. In Composites in Biomedical Applications (pp. 161-190). CRC Press.<br>5. **Sharip, N.S.** & Ariffin, H. (2019). Polymeric Composites for Joint Replacement. In Nanostructured Polymer Composites for Biomedical Applications (pp. 385-404). Elsevier. |

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| *Proceedings* | 1. **Sharip, N.S.**, Ariffin, H., Andou, & Y., Shirosaki (2021). Improved mechanical-tribological properties of ultra-high molecular weight polyethylene by the incorporation of cellulose nanofibrils via melt-blending. In *TAPPI Nano 2021 Virtual Conference*.<br>2. **Sharip, N.S.**, Ariffin, H., Andou, Y., Shirosaki, Y., Jawaid, M, Tahir, P.M., & Ibrahim, N.A. (2020). Improved mechanical-tribological properties and cytocompatibility evaluation of ultra-high molecular weight polyethylene/cellulose nanofiber bionanocomposites. In *8th International Symposium on Applied Engineering and Sciences* (Online Symposium).<br>3. **Sharip, N.S.**, Ariffin, H., Tahir, P.M., Jawaid, M., Ibrahim, N.A., & Andou, Y (2019). Effect of temperature, speed, and duration on filler dispersion and mechanical properties of ultra-high molecular weight polyethylene (UHMWPE)/Cellulose Nanofiber (CNF) Biocomposite Fabrication. In *Wood and Biofibre International Conference*, Kota Kinabalu, Malaysia.<br>4. **Sharip, N.S.**, Ariffin, H., Yasim-Anuar, T.A.T., Tahir, P.M., Jawaid, M, Ibrahim, N.A., Shirosaki, Y. & Andou, Y. (2019). Effect of Preparation Method on the Ultra-high Molecular Weight / Cellulose Nanofiber Nanocomposites Mechanical Properties. In *7th International Symposium on Applied Engineering and Sciences*, Serdang, Malaysia.<br>5. **Sharip, N.S.**, Ariffin, H., Andou, Y., Bahrin, E.K. & Jawaid, M. (2019). Effect of temperature, speed, and duration on filler dispersion and mechanical properties of ultra-high molecular weight polyethylene (UHMWPE) / Cellulose Nanofiber (CNF) Biocomposite Fabrication. In *11th International Conference on the Science and Technology for Advanced Ceramics*, Tsukuba, Japan.<br>6. **Sharip, N.S**. & Ariffin, H. (2017). Cellulose nanofibrils for biomaterial applications. In *Conference on Biomedical and Advances Materials*, Langkawi, Malaysia.<br>7. **Sharip, N.S.**, Ariffin, H., Hassan, M.A. & Shirai, Y. (2015). Potential use of superheated steam condensate from oil palm mesocarp fiber as antimicrobial agent. In *Asian Congress on Biotechnology*, Kuala Lumpur, Malaysia.<br>8. **Sharip, N.S.**, Ariffin, H., Hassan, M.A. & Shirai, Y. (2014). Antifungal Properties of Oil Palm MesocarpFiber Superheated Steam Condensate. In *2nd International Symposium on Applied Engineering and Sciences*, Fukuoka, Japan.<br>9. **Sharip, N.S.**, Ariffin, H., Hassan, M.A. & Shirai, Y. (2014). Effect of steam hydrolysis reaction temperature on the composition of oil palm mesocarp fiber condensate. In *Asian Federation of Biotechnology (AFOB) Regional Symposium*, Kuala Lumpur, Malaysia. |
| *Other publications* | - |
| *Computer software* | - |

**H. PROJEK PENYELIDIKAN TERDAHULU** *(Past Research Project)*

| *Project No.* | *Project Title* | *Role* | *Year* | *Source of fund* | *Status* |
|---|---|---|---|---|---|
| | Additive Optimization of Sustainable Food Packaging Material from Oil Palm Empty Fruit Bunch (EFB) | Researcher | 2023 | Nextgreen Global Berhad | Completed |
| | Coating Optimization of Sustainable Food Packaging Material from Oil Palm Empty Fruit Bunch (EFB) | Researcher | 2023 | Nextgreen Global Berhad | Completed |
| | Biodegradation Evaluation of Sustainable Food Packaging Material from Oil Palm EFB | Researcher | 2023-2024 | Nextgreen Global Berhad | Completed |

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| | Lignin Extraction and Recovery from Pulping Liquor | Researcher | 2023-2024 | Nextgreen Global Berhad | Completed |
| | Green Technology for Optimum Paper Pulp Production from EFB and Kenaf | Co-Researcher | 2021-2023 | Nextgreen Global Berhad | Completed |
| | Sustainable Food Packaging Material from Oil Palm EFB Cellulosic Fibre Extracted Using Hybrid Chemical-Mechanical-Thermal Process | Co-Researcher | 2018-2022 | Nextgreen Global Berhad | Completed |
| | Utilization of EFB Boiler Ash as Soil Conditioner for Marigold & Bok Choy Planting | Researcher | 2022 | Nextgreen Global Berhad | Completed |
| | Treatment of Discharged Water from Boiler Wet Scrubber using Activated Carbon | Co-Researcher | 2022 | Nextgreen Global Berhad | Completed |
| | Effects of Residual Lignin in Oil Palm EFB Cellulose Nanofiber on Dispersion, Mechanical and Thermal Properties of Polypropylene-Based Bionanocomposite | Co-Researcher | 2021 | UPM | Completed |
| | Biodegradation of Nanocellulose Incorporated Biopolymer (Undergraduate Final Year Project - FYP) | Co-Supervisor | 2021 | UPM | Completed |
| | Development of Ultra-high Molecular Weight Polyethylene /Cellulose Nanofiber Bionanocomposites for Tibial Inserts Application | Post Graduate Researcher | 2018-2021 | UPM | Completed |
| | Cellulose Nanofibrils as Alternative Rheology Modifier for Alcohol-Based Hand Sanitizer (Undergraduate FYP) | Co-Supervisor | 2020 | UPM | Completed |
| | Profiling of Polypeptide *via* LCMS/MS | Research Assistant | 2017 | MyHAC, JAKIM | Completed |
| | Physical and Chemical Characterization of Oil Palm Trunk Sap and Core Fibre from Veneer and Plywood Factory (Undergraduate FYP) | Co-Supervisor | 2016 | UPM | Completed |
| | Batch Cultivation of *Cupriavidus necator* KCTC 2649 Utilizing Oil Palm Trunk Sap in a 2 Liter Bioreactor for the Production of Poly(3- | Co-Supervisor | 2016 | UPM | Completed |

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| | Hydroxybutyrate) (Undergraduate FYP) | | | | |
| | The Effect of Inoculum Concentration on Poly(3-Hydroxybutyrate) Production from *Cupriavidus necator* KCTC 2649 Utilizing Oil Palm Trunk Sap (Undergraduate FYP) | Co-Supervisor | 2016 | UPM | Completed |
| | Evaluation of Process Integration for Scaling Up of Biocrotonic Acid Production (Undergraduate FYP) | Co-Supervisor | 2016 | UPM | Completed |
| | Characterization and Antifungal Properties of Oil Palm Mesocarp Fiber (Part of project sponsored by Japan International Cooperation Agency, JICA) | Post Graduate Researcher | 2013-2016 | JICA (SATREPS) | Completed |
| | Production of lipase by using immobilized cell of *Burkholderia cenocepaciae*. | Under-graduate Researcher (FYP) | 2012 | UPM | Completed |